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ABSTRACT

This guide covers the Canadian Maritime provinces of New Brunswick, Prince Edward Island, and Nova Scotia. The first in a series prepared for geographers and those interested in travel, this guide is written by local geographers or others with special expertise on the area and provides insights and a feeling for place that textbooks often miss. This guide introduces a region outside the geographical experience of most people in the United States and of many Canadians. The complexities, joys, and challenges of this multicultural region are presented for further exploration. Part 1, "An Overview of the Region," includes: (1) "Introduction"; (2) "First People"; (3) "The Maritimes in Canadian History"; (4) "The Environment of the Maritimes"; (5) "Physical Geography"; and (6) "Environmental Problems." Part 2, "The Regions of the Maritimes," includes: (1) "Acadia"; (2) "'Acadian' or 'Maritimer': A Question of Identity and Geography" (Samuel Arsenault); (3) "Editor's Postscript"; (4) "Prince Edward Island"; (5) "Prince Edward Island: Garden of the Gulf--The Million Acre Farm" (Peter Ennals; Frank Driscoll); (6) "Halifax"; (7) "Halifax and Its Region" (Hugh Milward); (8) "The Annapolis Valley"; (9) "Down the Length of the Annapolis Valley" (James E. Taylor); (10) "Nova Scotia's South Shore"; (11) "Touring the South Shore" (Elaine F. Bosowski); (12) "Cape Breton Island"; (13) "Cape Breton Island and the Five Themes of Geography" (Stephen Hornsby); (14) "Selected References"; and (15) "Contributors." Part 3 lists field trip itineraries for the region. Maps, charts, and drawings accompany the text. Contains 33 references and a list of contributors). (EH)

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ATHWAYS IN GEOGRAPHY
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The National Council for
Geographic Education

The Canadian Maritimes:

Images and Encounters

Edited by Peter Ennals

Prepared for the annual meeting of the:
National Council for Geographic Education
Halifax, Nova Scotia
August 3-7, 1993

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The Canadian Maritimes:

Images and Encounters

Edited by Peter Ennals

Prepared for the annual meeting of the:
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PATHWAYS IN GEOGRAPHY Series Title No. 6

The Canadian Maritimes:
Images and Encounters

Edited by Peter Ennals

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Foreword

Annual meetings of the National Council for Geographic Education offer many opportunities for Images and Encounters. *By attending, geographic educators express their enthusiasm for travel, make and renew friendships with colleagues, and share ideas about teaching. With the goal of making these meetings even more enjoyable and useful, the Special Publications Advisory Board is initiating a series of guides to the regions and places where we gather. Each will be written by local geographers or others with special expertise on the area, providing insights and a feeling for place that textbooks often miss. We hope they will become a resource for educators who do not attend the meeting as well as those who do.*

We are especially pleased that our colleagues in the Canadian Maritimes agreed to prepare this first volume, which treats a region outside the geographical experience of most people in the United States and of many Canadians. In the pages that follow, they introduce you to the complexities, joys, and challenges of this multicultural region.

Janice Monk
Editor, Special Publications

Preface

The Maritime region is generally assumed to consist of the three Canadian provinces of New Brunswick, Prince Edward Island, and Nova Scotia. Some regard the Gaspé region of Québec, which shares a similar history and geography, to be part of the region as well. Canadians also use the term "Atlantic Canada" but this is specifically a reference to the greater regional construct consisting of the Maritimes, Newfoundland, and Labrador.

Geographers are not alone in seeking to find interesting locations to hold their conferences. My friends in the medical and pharmaceutical professions are forever heading to professional meeting in the Caribbean or some other equally exotic location just at the time when winter's blahs seem most pronounced. No doubt they dutifully attend paper presentations and earnestly discuss the latest intricacies of surgical technique, new therapeutic compound, or whatever, but I have never known them to return with any new insight on the places they visited. Indeed apart from boldly striking out for the golf course or a day of marlin fishing, I am not sure they absorb much beyond the hotel and airport lobby. This undoubtedly maligns unfairly the range and diversity of intellectual curiosity of many of our colleagues in other fields, but it does underscore one of the profound habits of mind of those who make geography their calling. More often than not, we rationalize our attendance at a conference precisely because it provides an opportunity to see the country, to explore off the track, and to extend our teaching collection of 35mm slides. As my colleague Ted Relph notes in the preface to The Toronto Guide produced for the 1990 Annual Meeting of the Association of American Geographers:

> *Reality deserves at least as much attention as theory and there is no better way to discover what a place is like than direct observation. But exploration is time consuming and conferences are brief. Hence there are guidebooks.*

The task of producing a guidebook for this conference has proved an interesting challenge. It helps to understand the context in which it has been created. First, for a variety of reasons, none of which are very clear, Maritime Canada has failed to embrace the modern academic discipline of geography. Only three of the regions's 17 university campuses have departments of geography; all of these arrived on the scene as recently as the 1970s and none has a faculty complement exceeding five. This situation stands in stark contrast to the strong tradition of academic geography in the rest of Canada. The weakness observed at the university level is mirrored in large part in the public schools realm as well.

Inevitably then, there have been severe limits to the number of individuals who might be drafted into the organization of this conference, let alone producing a written contribution to a significant guidebook. Nevertheless this volume is a cooperative effort of a number of people. Exacerbating the challenge has been the fact that few of the contributors know each other, nor have there been opportunities to get together to develop a shared model of how the guide might be constructed and written. What follows has been produced by a series of arm's length relationships persuasively brought to a resolution by the organizing committee and the editor. In this sense, whatever merits there be in what follows are due to the hard work and insight of the contributors, and whatever shortcoming arise can undoubtedly be blamed on the editor.

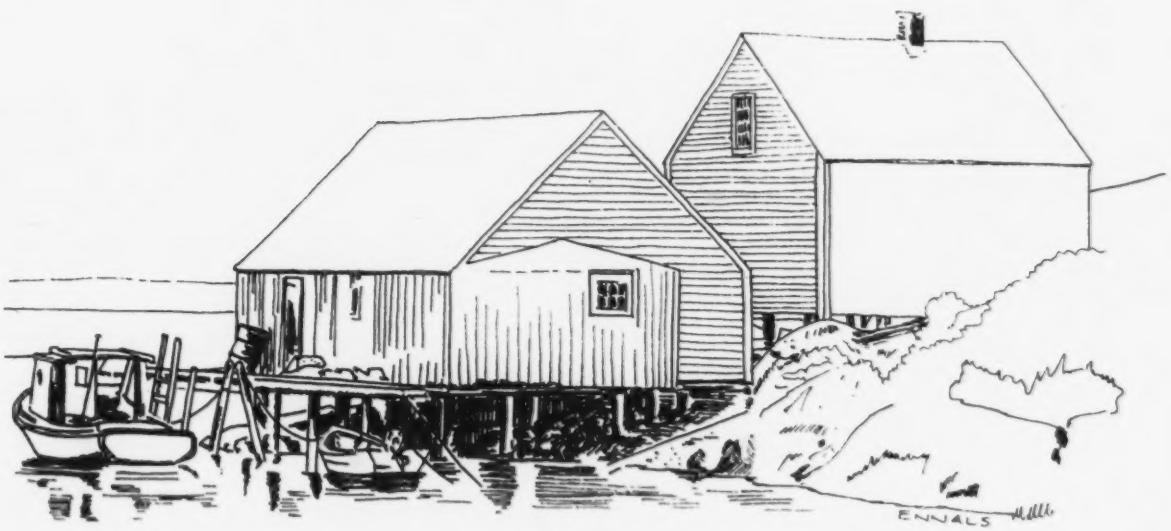
This guidebook assumes that a significant number of those who will be attending this conference will have arranged to travel to Halifax by car, perhaps with family members. For others, the opportunity to see a little of the region may be constrained by what can be accomplished by a day or two with a rented car before, or after, the conference itself. We have tried as much as possible to respond to an audience who may have to make difficult choices about where to go and what to see. Readers must also appreciate that the guide has not provided an equal or complete coverage of the entire Maritime region. There is little coverage of New Brunswick, apart from Sam Arseneault's essay on Acadian identity. This is an unfortunate deficiency since New Brunswick is too frequently overlooked by travellers bent on reaching the better know destinations of Nova Scotia and Prince Edward Island. New

Brunswick's byways are as interesting and scenic as those elsewhere in the region and they warrant coast -- from Amherst, through Truro and Antigonish to Canso, and the coastal stretch from Canso to Halifax are not treated.

The volume contains separate sections that relate to the specific field trips being organized as part of the conference. One dividend of this project is that this guidebook may find an audience among those unable to attend the conference. Given the already noted paucity of working and teaching geographers in the Maritime region, it is very likely that this volume will be of interest to Canadian teachers whose access to curricular materials is surprisingly spare when it comes to interpreting this part of Canada.

The guide itself is organized so as to provide an introductory overview of the region's economic and social history and its physical geography. Thereafter, a series of sub-regional sections illuminate distinctive parts of the region. The reader is invited to read the introduction and then select the regional chapters that might be visited en route, or as extra-mural side trips. In the interests of readability, we have chosen not to burden the text with footnotes and references. A selection of useful published works on the region is appended. Readers are advised that most bookstores in the region will feature a section on local publications. However visitors may want to visit *A Pair of Trindles*, a bookstore located in the Old Red Store section of the Historic Properties development on the Halifax waterfront. This store is devoted to Canadian books exclusively and carries a large stock.

Thanks are due to all of the contributors who responded without hesitation and who were remarkably attentive to deadlines. All of us are indebted to Ben Ouellette, the cartographer in the Department of Geography at Saint Mary's University for producing a series of maps on short notice. Special thanks go to Janice Monk, the Acting Editor of Publications for the NCGE, who has made valuable suggestions regarding the shape and style of this volume. Finally Stuart Semple, Hugh Millward, James Boxall, John Trites and Sylvia McBurney have played a significant role in this project. They were the ones who accepted the challenge of generating such a volume and through them many of the contributors were recruited. A shared endeavour can be very satisfying and I trust that all who had a hand in this venture will feel the final product reflects the region we all love, and that it will offer visitors a chance to capture a bit of our enthusiasm.



Peggy's Cove, Nova Scotia

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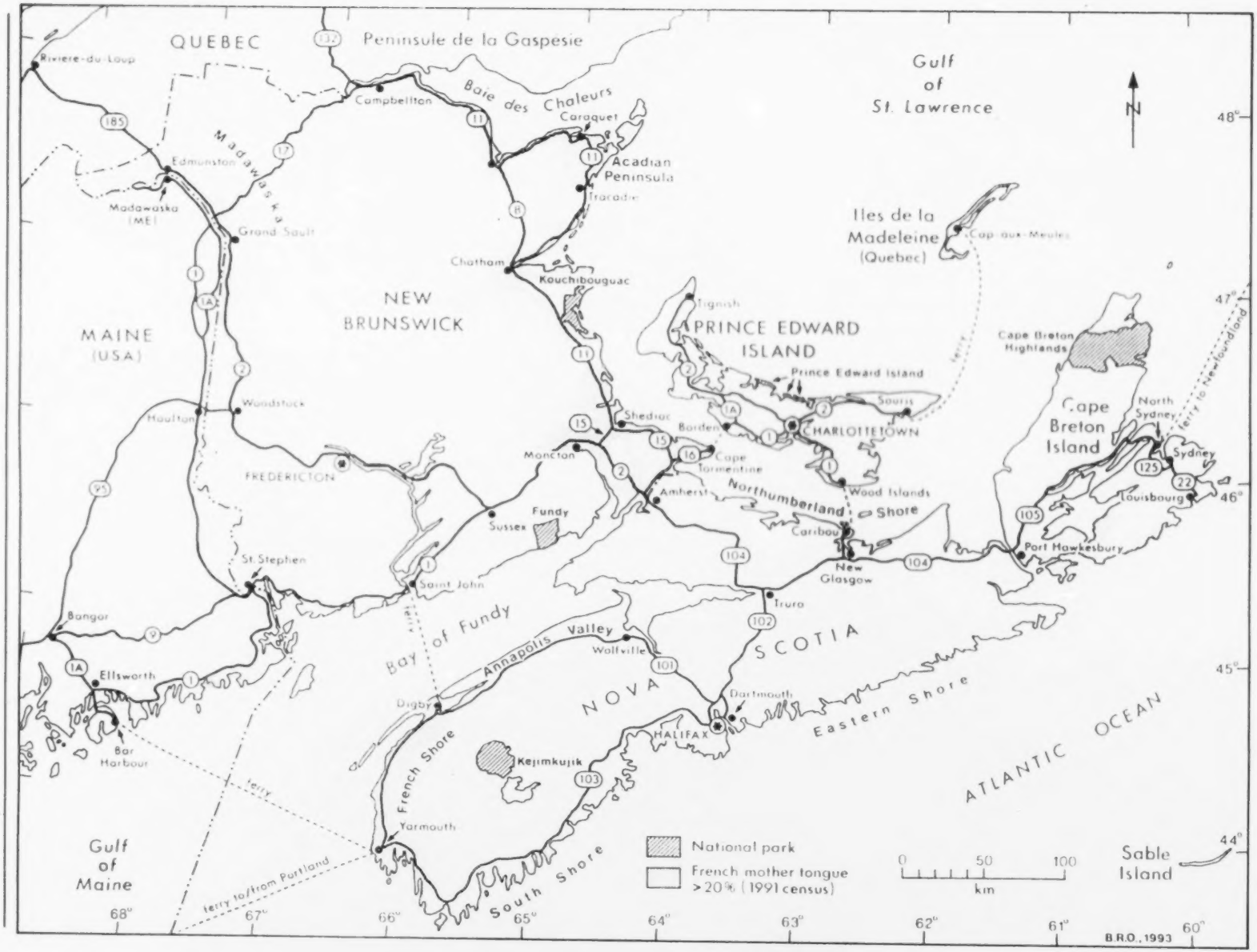

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Part I:
An Overview of the Region

Introduction

Instinctively, any Maritimer called upon to introduce his home region starts with "history" rather than "geography." This is a region that habitually looks to its past. Pride of place is rooted in past glories rather than present realities. As the chronic laggard region in any survey of the modern Canadian economy, and as the region with the most perceptible echoes of a traditional ways of life, the Maritimes has come to define itself by its quaintness, its "up home" rhythms and old fashioned values. Here visitors, whether from elsewhere in Canada or beyond, can easily hear strong accents and dialects evoking the soft voices of the highlands and islands of Scotland, or the lilt of southern Ireland. Meanwhile the rest of Canada has long since conformed to a standard received North American English — the middling accent that has allowed Canadian newsreaders to populate a disproportionate number of the "anchormen" and T.V. reporter jobs in American network television. Regional popular culture, especially its musical idioms, its humour, and its theatre remain strongly connected to the past, especially the "folk history" of the Acadian and Scots diaspora that has marked the settlement of the region.

There are other reasons why history takes precedence to geography. The Maritimer has a fickle relationship with the land. Perhaps as much as any other part of North America, people here have treated the land with ambivalence. The sea has offered equal or greater promise throughout much of the past four centuries. Any glance at a map reveals how closely tied settlement is to the coastal zone. The interior of New Brunswick and the elevated rocky spine of Cape Breton and peninsular Nova Scotia are notably bereft of people, let alone towns and villages. The highway trek across New Brunswick from Plaster Rock to Renous can be an unnerving two-hour trip through the Great Woods without recourse to even a gas station. Compared to most parts of North America — even New England — commercial agriculture seems to be largely irrelevant on the mainland, with the exception of a few limited pockets. The forest intrudes on the rural landscape even where farming has been tried. In most areas, cleared land appears as small cut-outs in the ever-present forest. To the eye of those "from away," the dominant forest is a surprisingly gloomy and rag-tag cover of black spruce; the admixture of hardwoods is noticeably constrained. It is in short, a land that is hard to love.

Contrast this with the clarity of light and the long sight lines that are the very essence of the coastal margin. Despite the periodic harshness of the sea, it provides comfort. Perhaps this is because the sea offers a tangible link backward to ancestral homelands. It certainly has offered a remarkably steady living for the tough men who for generations plied its waters as mariners or as fishermen. The strongest images and the greatest defining myths of the region tend to be firmly fixed on the sea. We are a people who have looked outward across the water, and by contrast, have struggled to come to terms with the continental forces that have dominated the history and lifeway of most of the remainder of Canada and the United States.

First People

For at least the past 11,000 years the Maritime region has been occupied by aboriginal people who are members of the broader Algonquian language family. Two distinct sub-groups are found in the region. At the time of contact the greater part of the region, lying east of the Saint John River watershed including the coastal areas of the Gaspé, all of present-day Prince Edward Island, and all of Nova Scotia, was home to the Micmac people. The remainder of the region was occupied by the Maliseet people. Prior to European contact these people lived primarily by hunting and fishing. This form of economy favoured small mobile units of kin related people who were able to move about the region to exploit the seasonal availability of wild game, migrating birds and marine species. Cultivation does not seem to have featured in their cultural pattern.

These people were among the first aboriginal people to experience European contact. Although there is now sound archaeological evidence of a semi-permanent Norse settlement during the 10th century at places such as L'Anse aux Meadow on the northern peninsula of Newfoundland, the Viking impact, if any, on aboriginal culture further to the south is not well understood. However, we do know that French, English, Portuguese and Basque fishermen had been extending their activities across the North Atlantic and into the Gulf of St. Lawrence with growing frequency throughout the 16th century. Recent marine archaeology has revealed that between 1525 and 1626, Basque whalers and fishermen annually spent the summer at a station located at Red Bay on the Labrador coast. These people had frequent and apparently friendly contacts with the Micmac whom they encountered around the Gulf of St. Lawrence.

The most profound cultural impact was that arising from French contact when permanent mainland settlement began in 1604. As in other parts of the Americas, the native population underwent a considerable early depopulation and cultural disruption. That said, the relationship with the French was remarkably symbiotic and lacked the violence that occurred in many other parts of the Americas. For example, the Acadian occupation of the tidal marshes for agriculture seems not to have dislodged Micmac or Maliseet peoples, though it may have disrupted these people's annual visits to these locations to harvest wild rice and to hunt migrating water fowl. For their part, the French were quick to use the aboriginal people to execute the fur trade, and, as this industry quickly shifted westward to Quebec and the Great Lakes region, to serve as intermediaries with native groups on the moving frontier of this activity. The Maritime phase of the fur trade was extremely short-lived however, and the Micmac were left without an exploitable advantage. Thereafter, they sought to secure their relationship with the French by providing a military buffer between the French and English. Nevertheless, when the British became the dominant colonial power in the region, the native people were increasingly pressured into adopting an alien cultural pattern of agriculture and wage labour, and were steered into socially isolating reserve lands.

The Maritimes in Canadian History

The Maritime region offers to the European people of modern Canada the figurative point of national beginning. It was here that the first sustained Europe settlement began in 1604 when the first French colony was planted, and during the succeeding century and half, a significant part of the great geopolitical struggle between Britain and France for control of North America was played out in the region. During the last half of the 18th century under British control, other ethnically cohesive colonies followed, and some like the Highland Scots and the American Loyalists have continued to exert a powerful sense of identity and settler mythology. Much later, the critical political meetings that transformed the colonies of British North America into the modern nation of Canada took place in Charlottetown, the seat of government of the Colony of Prince Edward Island. In a great many ways then, this region frames the cultural hearth of the Canadian nation. Many of its sites provide for the Canadian people what Plymouth Rock and Jamestown and Philadelphia and Yorktown and the Alamo are to the people of the United States.

Yet in spite of nearly four centuries of European presence on these lands, most Canadians have a very weak sense of the region, its geography and its culture. To many Canadians the region is a kind of folksy backwater — populated by colourful fisherfolk at best, and by lazy social welfare abusers at worst. The reason why it features so dimly in our consciousness has much to do with the rhythms of 20th-century Canadian development which have largely by-passed this region. Quite simply, the Maritimes has found itself on the margin of the central locus of North American development in colonial and post-colonial times. But there are other factors. Climate and geography made agriculture difficult, consequently European settlers were drawn to other resource opportunities, especially those gleaned from the forest and the sea — resources that have only partially succeeded in generating the kind of broad social base of wealth that has marked most of the rest of the continent. Most North Americans do not easily relate to these activities and are consequently uninformed about this region.

The products and trade that flowed from these alternative resource economies encouraged an aggressive mercantilism, and inevitably, the economic, social and perhaps even emotional identification of many

of those who organized this economy looked "backwards" to overseas homelands rather than developing a continental orientation and commitment. In what some have nostalgically called the region's "golden age," Maritimers came to play a significant role in all phases of the movement of goods between Europe, North America, and the Caribbean. This trade was a complex one, involving not only the production and marshalling of trade goods such as fish and timber from the region, but also the construction of the trading vessels themselves. These ships eventually became one of the few value-added commodities that could be sold abroad and for a time during the middle decades of the 19th century, Maritime-built sailing vessels formed approximately a third of the entire North Atlantic fleet. Moreover, the trade itself was multi-faceted in that the routes and cargoes involved the movement of "southern goods" such as sugar, rum, cotton, and nitrates in exchange for dried fish, European manufactured goods, and the transport of human cargoes in the form of African slaves, and British and European emigrants.

Even though the ports of Halifax and Saint John became important hinges in this mercantile world, many of the fundamental aspects of the infrastructure of this trade were surprisingly dispersed. Because the region's principal components of trade, viz. cod, squared timber and later sawn lumber, and the wooden sailing vessels themselves were all procured in the scatter of small out-ports that lay along the Atlantic coast or around the Bay of Fundy, or at the mouth of the great rivers of New Brunswick, this was a surprisingly rural activity in its nature and geography.

For most of those who worked in the elements of the trade — as fishermen, timbermen, shipbuilders, or mariners — employment was largely a seasonal craft-oriented form of work, and many men found it economically necessary to move seasonally through a round of activities that might also combine a little farming. These patterns of male labour migration left women and families alone for periods of the year. Under these circumstances women had the dominant responsibility for maintaining the household economy, including much of the farming, for child rearing, and many also participated in shore-based labour associated with fishing. For example, women could perform tasks such splitting and gutting fish, and turning fish set out on "flakes" to dry in the sun and air. While women added a measure of stability to the patterns of household living, commitment to one place of residency, or to a single specialized form of work, was often limited and high rates of transience were probably a feature of the region throughout the 18th and 19th centuries. To a greater of lesser extent this pattern cut across all classes. For many of the merchants who pursued profits from these endeavours, it was feasible to organized trade from Britain or France rather than commit to a permanent living in North America. Many of these merchants who did establish residency in the region later found it socially preferable to abandon the Maritimes and live in fashionable retirement in Britain or Ireland rather than Halifax or Saint John.

The golden age of "wooden ships and iron men," the era of mercantile capitalism came to end during the 1880s. What followed was an abortive second phase of prosperity, the so-called "golden age of enterprise." By the end of the 19th century, the forces of industrial capitalism were transforming the assumptions of work and society throughout the North American continent. The dilemma that confronted would-be industrialists in Maritime Canada was the inertia of a still moderately profitable mercantile economy at home, and the dynamics of a national population and economy that was concentrated a thousand miles to the west. By the 1870s, Canadian federal economic policy implicitly recognized that the economic core of the nation was concentrated in the region stretching along the upper St. Lawrence River from Montreal westward through Southern Ontario. This "heartland" was geographically favoured to service not only the burgeoning agricultural "hinterland" that exploded across the Canadian Prairie in the half century after 1880, but also the other hinterlands of rural Quebec and the Maritimes, and the thinly populated areas of northern Canada.

By the close of World War I, it became apparent that many of the nascent industrial and manufacturing firms in the Maritimes were too removed and too limited in scale to compete with central Canadian counterparts. Many found it easier and more profitable to sell out to Ontario and Quebec-based firms, who quickly closed operations or relegated them to a limited branch-plant status. Nevertheless, during the three decades after 1890, the region did generate some remarkable industrial efforts particularly in the production of coal and steel which came to be centered in Cape Breton and around Pictou in Nova Scotia. There were also attempts to mirror the kind of textile manufacturing episode that so forcefully defined much of the industrial landscape of New England during the same period. Though far smaller and dispersed in its geography, this industry offered for a time a singular local opportunity for female wage labour in places like Saint John and Marysville in New Brunswick and Truro and Yarmouth in Nova Scotia.

By about 1920, Maritime Canadians had to face the harsh reality of a truncated economic future. Not only had the great age of wooden sailing ships passed into history, the impetus in ocean shipping had also passed into other hands. Quite simply the highly fragmented and craft oriented world of Maritime sailing ships had failed to anticipate or adapt to the technological change brought on by international transoceanic steamships. Together with the failure to project its industrial base forward or to establish export markets for its goods, the region was left as an economically marginalized part of Canada. Between 1920 and 1970 urban growth and development stagnated. Infrastructural investment and modernization lagged behind other parts of Canada.

Out-migration remained a persistent feature and many of the better-educated and most ambitious young people sought their future in the "Boston States" (as New England was popularly called), or in the cities of central Canada. The result of this need to "go down the road" was that unusually high numbers of Maritimers could be found among the ranks of the English-speaking teaching corps of Montreal, among the nursing force of New England and central Canadian hospitals, and in the pulpits of Canada's major religious denominations. In a similar way, disproportionate numbers of young men from the region found their way into the Canadian military and into the ranks of the Royal Canadian Mounted Police. The process of out-migration had in fact begun as early as the 1850s when it was apparent that the region had a surplus population. Large numbers of Maritimers were drawn southward to work in the mills and factories of New England. During the Civil War period, many Acadians migrated to fill the factory jobs left by departed Union soldiers. For decades Maritimers moved back and forth along this north-south axis in various patterns of semi-permanent labour migration. At a very human level the two regions became bound together economically and culturally. Even today family ties produce a good deal of cross border visiting. At another level, for many Maritimer baseball fans allegiance lies with the Boston Red Sox, rather than the Toronto Blue Jays.

One consequence of the region's economic dislocation has been the development of a dependency on federal government "transfer payments" which have been a central feature of the Canadian post-war welfare state. The "federalism" inherent in government policy, without respect to ruling party, has tended to accept the notion of "equalization," wherein richer provinces, and especially those having mineral and petroleum rich hinterlands, have shared their wealth with "have-not" regions. The specific mechanisms of this sharing have operated through not only a national system of unemployment insurance and a federally mandated medicare system, but also a comprehensive regional economic development mechanism. For the past 40 years, a series of well-intentioned regional development schemes have poured federal aid to the region to sustain and revitalize rusting steel mills in Cape Breton; initiate manufacturing enterprise, much of it lured from off-shore; to modernize ocean shipping terminals; or to create leading-edge infrastructure, such as heavy water manufacturing, judged critical to future growth. Many of these efforts have been modest successes at best, and celebrated failures at worst. At a more human scale these policies have provided social security benefits to workers even when their real employment prospects in fishing for example, were limited to only a few months of the year. Only now are the region's political leaders daring to wean the population from this dependency.

Today the questions that face the region are those that challenge most other parts of the continent. Maritimers are struggling to understand what will be required of them as the so-called "global economy" unfolds. The words restructuring, efficiency, competitiveness are resonating here as loudly as they are elsewhere. Canada's public debate for almost a generation has been profoundly introspective, and has centered on the relationship of Quebec and its people in the larger fabric of Canadian life and politics. There remain strong pressures within Quebec to withdraw that province from the national confederation and to produce a separate and sovereign state. Should that happen, the Maritimes would be physically cut off from the remainder of Canada. Fears have been expressed that the region would become a kind of Canadian "Alaska" — too small and fragmented to sustain a way of life equal to its distant and more dynamic body. That said, the more optimistic among us have argued that the new global economy offers a new prospect to recapture our "Golden Age," when the region looked outward and traded across the world. The task, it is argued, is to find the products and the skills that will enable the region to achieve this goal. A few celebrated regional firms have shown the way. Tucked away in many of the small communities, often in the most unlikely setting, are individual entrepreneurs building small businesses determined to participate in this new economy. Set against this positive vision is a collapsing fishery and a pulp and paper industry devastated by the need to invest in new technology to conform to new environmental standards at the very moment when a protracted recession has undermined national and international markets.

The Environment of the Maritimes

Many of the problems confronting the region strongly reflect the geographical and environmental character of the region. Yet Maritimers are surprisingly unreflective on these conditions — again perhaps a consequence of the weak place of academic geography in the region's habit of thinking. For example, the fact that the region has a remarkable ratio of coastline to land expanse offers both great opportunity for access to marine resources but also greatly complicates intra-regional transport. Compared to the rest of Canada, the region is notable for its limited scale. The region covers 134,584 square kilometres [since the mid-1970s Canada has adopted the metric form of measure], just one percent of the Canadian land surface. Unlike all of the other Canadian provinces, the three Maritime provinces do not have expansive northern hinterlands — this is a comparatively compact region. Nevertheless, overland transportation has never been direct nor easy to construct in a region fragmented into a number of significant islands and peninsular arms of land. With only a thin population and a weak regional economy, the cost of building and maintaining a road, rail and ferry system that is necessarily circuitous, places a heavy burden on the region's tax payers. No doubt this accounts for the virtual loss of a functional rail system and the low standard of highway that the visitor will encounter all too often.

Physical Geography

The core of the Maritime land mass consists of worn down remnants of old Paleozoic folded mountains — the north-eastern extension of the Appalachian highlands. The mountain sections are some 2,000 to 3,000 feet lower in elevation than the areas to the south, such as the White Mountains of New Hampshire. In fact, the most pronounced upland areas consist of four rather limited blocks — the Caledonia Hills flanking the upper or New Brunswick end of the Bay of Fundy, the Cobequid Hills stretching along the north Fundy and Minas Basin coast, the Pictou-Antigonish Hills, and the Cape Breton Highlands, the most pronounced and ruggedly scenic of the four. (See Map 2). Much of the lower elevations of this geological platform is overlaid with later Carboniferous and Triassic sediments consisting variously of volcanic basaltic material, sandstones and shales, some of which contain coal measures deposited during Pennsylvanian time. Throughout most of New Brunswick, Prince Edward Island, and northern Nova Scotia, these lowland structures appear as rolling plains and plateaux. The only other structure of note is the Atlantic Upland, a distinct physiographic region extending along the length of peninsular Nova Scotia where it appears as a tilted block dipping beneath the ocean in the south-east.

Glaciation greatly reworked all of these surfaces, but the residues of this episode are not as perceptible to the observer as they are in flat land areas such as southern Ontario where glacial landforms produce the only significant topographic features. Nevertheless, here and there the remnants of the Pleistocene are evident. For those who venture into the forested interior of the region of North New Brunswick, Cape Breton, and the Atlantic uplands, the landscape most likely to be encountered is one of disrupted drainage producing muskeg, bog and swamp. In some cases these areas have yielded important deposits of commercial peat. The area around Lemeque, New Brunswick, for example, is exploited in this way, and there have been experiments to test its utility as a source for thermal power generation.

Elsewhere, one can easily pick out the drumlins that produce some of the islands of Halifax harbour, for example. There are, in fact, other even more spectacular drumlin fields further along the coast around Chester, Mahone Bay, and Lunenburg — the latter townsite being in the midst of one of these fields. Another area that provides good examples of a glacial landscape is the section around the Cobequid Hills. On the north side of these hills are extensive kame terraces, while the hills themselves are pierced by deep river passes some of which are clogged with late glacial gravel and debris in the form of kame moraines. One of these is plainly visible as the deposit that creates Folly Lake at the top of the Wentworth Valley [on the Route 104 west of Truro, Nova Scotia]. However the most spectacular glacial landscape is the scoured granitic surface, strewn with enormous erratic boulders in the area surrounding Peggy's Cove, Nova Scotia.

The landscape of the coastal zone is also a by-product of glacial times. During the Pleistocene, the ice sheet covering the region extended well offshore over the continental shelf. Characteristic deposits were therefore laid down on areas now covered by water and a few such as the drumlins in the harbours of Halifax, Chester, and Mahone Bay, as noted earlier, are revealed as islands today. However, the more important coastal land forming events have to do with changes in sea levels

after the ice melted. These have had a pronounced effect on the Maritime coasts with large sections experiencing transgressions of the sea into estuaries and low lying coastal areas. For example, areas along the shores of the Gulf of St. Lawrence and the Northumberland Strait have developed characteristic dune, bar, spit, and barrier island deposits, and several of these areas have been designated as National Parks, eg. Kouchibouguac in New Brunswick and Prince Edward Island National Park. Blessed with warm waters during the summer [said to be the warmest north of the Carolinas], these beaches attract large numbers of summer visitors.

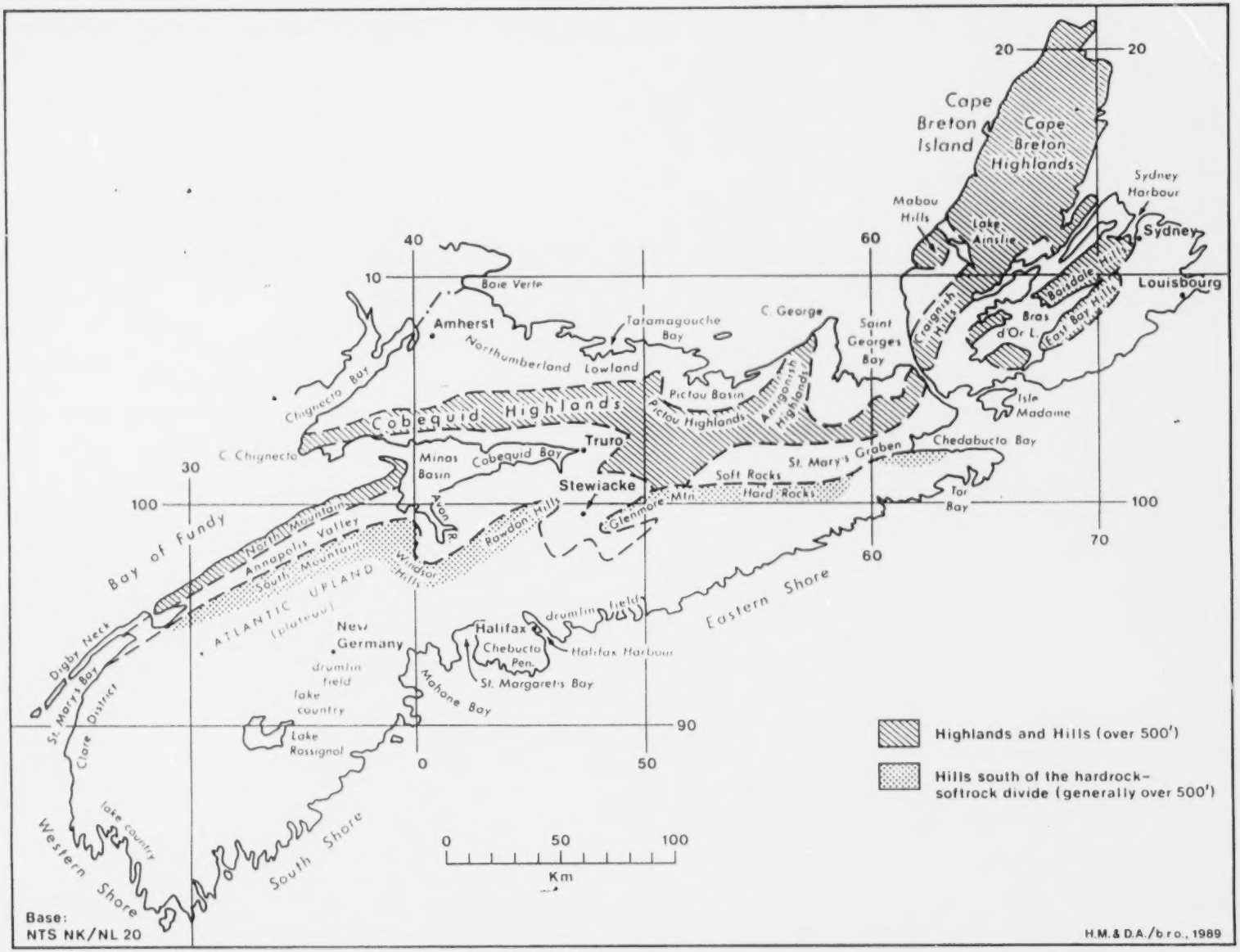
The glacial episode has also had a profound effect on soils in the region. Though there are some areas where pre-glacial soils have remained intact, large areas have been left with a soil cover that is thin, rocky, and highly acidic in nature. Not surprisingly agriculture tends to be highly restricted in its geography, and, wherever farming is tried, operators need to take great pains to improve the soil by adding calcium and fertilizers and by careful management practices, especially where steeper topography is found. Until the 1950s, many farmers solved these two problems by sweetening the soil not with processed lime, but with lobster and clam shells, and by the use of horse and even oxen to cultivate upland fields. Today the latter survive as nostalgic elements of rural life — horse and ox pulls are the exciting stuff of summer fairs. Instead, farmers have been persuaded that progress requires the use of tractors and processed lime. Unfortunately as an ironic twist of "progress," lobster bodies, the by-products of the inshore fishery, are now sent to land-fill sites. Elsewhere, the deeper red soils of Prince Edward Island have spawned a strong agricultural economy, the principal activity being large scale commercial potato production. A similar industry exists in the upper Saint John River valley between Grand Falls and Florenceville — the Canadian counterpart of Maine's Aroostook region.

One of the most interesting episodes of the region's agrarian history reveals much about the perception and exploitation of this difficult habitat. Acadians, the region's first committed farmers, quickly established themselves on the deep rich soils of the coastal salt marshes around the upper Bay of Fundy, thereby avoiding the need to cut the forest to farm. The problem confronting these settlers was that these soils were subject to periodic incursion of the sea; a factor made even more pronounced by the remarkably high tides of the Bay of Fundy. The solution was the building of dykes which, when sluice gates (or aboiteaux) were installed where the natural drainage system pierced the dykes, prevented the inflow of tidal salt water onto the marshes. Within three or four years, the marsh soils were desalinated and ready for conversion to European grasses and crop production. These people also exploited the comparatively thick glacial tills and rich alluvial soils of the Annapolis Valley stretching away from the marshes. While soils have been an important element in the valley's agricultural success, micro climate is even more critical. The presence of a coastal mountain ridge separating the valley from the cold and fog of the Bay of Fundy best explains why it has sustained an important mixed farming and apple producing industry for nearly four centuries.

The climate of the region is a story unto itself. Projecting out into the North Atlantic, most parts of the region feel the mediating effect of the ocean, especially in summer when temperatures rarely reach 30 degrees Celsius [85 degrees Fahrenheit]. Lest anyone be tempted to believe that this relationship and proximity to the sea produces a "maritime climate," it must be remembered that this is an east coast location whose weather and air masses formation is predominantly affected by a huge continent. The impact of continental polar and arctic air masses ensures that winter temperatures are anything but moderate and hospitable. Coastal areas in the Gulf of St. Lawrence are covered with pack ice until early April. There are still people who remember when the entire province of Prince Edward Island was essentially cut of from the rest of the nation for four months of the year except for the intrepid men who carried the mails in open boats over the ice in the Northumberland Strait. Incredibly, the modern fishery continues to function in the deeper waters of the continental shelf throughout these difficult winter months, though not without hazard and cruel disaster.

For Maritimers the general perception is that the year consists of six months of winter, one month of spring, three months of summer, and two months of fall. These regimes have made the production of many conventional European agricultural crops a challenge in many locations. Historically, coarser grains have been favoured over wheat. The reliable commercial production of corn as a fodder crop has only recently become possible in the past generation through the development of short season hybrids. The most evident feature of weather for those who live in the region is its changeability. One need only look at a map of prevailing "cyclonic storm tracks" for the North American continent. With remarkable consistency, these storms funnel out into the North Atlantic directly over the Maritime region. Consequently, the region might be the recipient of a tropical storm system making its way from the Gulf of Mexico up the eastern seaboard one

Map 2 - Physiographic areas and features



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day, and a storm tracking out of the Great Lakes area the next. The stability of the air and the storm dynamics of these sequential systems can be profoundly different. The worst winter storms are those which bring a full charge of moist air and which track so that the cyclonic flow strikes the region out of the north east. These Nor'easters can produce blizzards that bury the region under snow and high wind. For example, the city of Moncton, New Brunswick, received approximately a metre and half of snow in one 24 hour period in early February 1992.

Environmental Problems

What are the environmental problems of the region? As we have seen, soils, climate, and distance from central markets have imposed limits on commercial agriculture. Not surprisingly, the forest and the sea have offered alternative economic opportunities. These other resources have been important since colonial times. Though the French established Acadia for the purpose of initiating a fur trade, it was the fishery that emerged as the real rationale for the colony. The waters of the region's "offshore" continental shelf and "inshore" in the estuaries and waters closer to land, have offered a rich bounty of diverse species. The principal commercial species has always been cod, but a profitable catch of haddock, pollock, mackerel, salmon, herring, squid, shrimp, lobster, crab, and scallops have at times featured in this industry. The capture of each of these species employs different boats and gear, and a complex segmentation of coastal zones and regulation of seasonal fishing is required. Some fishermen work the deeper offshore, and some, like the Lunenburgers, have historically undertaken extensive voyages to the Grand Banks off Newfoundland or to the coast of Labrador to prosecute this activity. Others have traditionally made short daily trips a few miles offshore to set lobster traps, or nets for inshore species. For decades a rich fishery was concentrated in the large rivers, eg. the Saint John, Miramichi, Restigouche, to catch Atlantic salmon on their return from the sea to spawn.

During the past two decades, there has been an unprecedented pressure placed on this activity. Despite Canada's attempts to administer a 200-mile offshore management zone, the resource has been heavily exploited by the fleets of many nations — Spain, Portugal, France, Poland, Russia, Korea to name the most aggressive. More important has been the technological assault that these fleets have brought to the task. Using large trawlers and accompanying factory ships, the resource has been ruthlessly exploited. Trawler technology cleans the ocean floor of species indiscriminately. Fish that are not wanted, or fish that exceed an allowable management quota are discarded, usually dead. The Canadian fishery was slow to change to this technology partly because it was still possible to fish within contact of shore. Nevertheless, faced with stiff competition from foreign fleets, company-owned trawlers became common. The conversion to this newer and more efficient form of fishing greatly reduced the numbers of men employed at sea and also produced a greatly rationalized system of more modern freezer processing plants onshore. A distinct inshore fishery has all the wile persisted, but the shift toward a more "industrialized" fishery as reflected in government policy and management theory has in some ways marginalized the independent inshore fisherman.

Today, the industry is in the throes of economic chaos. At the heart of the crisis is the apparent collapse of the single most important species, the cod. Explanations vary, but overfishing seems to be the cause. Canadian authorities have ordered Canadian fishermen to cease fishing in certain offshore zones until stocks can recover. Getting the foreign fleets to cease their mining of the seas remains a more difficult diplomatic challenge. For many communities dependent upon this industry the impact will be devastating.

Part II: The Regions of the Maritimes

Acadia

For those who choose to travel to the conference by car and who take the overland routes through New Brunswick, there will come a time when French signs and French voices will be encountered. These exotic signals mark your arrival in Acadia. Yet a recognition and definition of modern Acadia — a space within a space and a people within a people — is not easily understood. After all, the origins of Acadia lie with the founding of a small fur trading base at Port Royal by Sieur du Monts and Samuel de Champlain in 1605 in what is today Nova Scotia. From this beginning small bands of later settlers (it is estimated that there were probably never more than 500 original immigrants), many of them indentured labourers, spread other settlements further up the Bay of Fundy onto the great salt marshes of the Minas and Cumberland Basins. Elsewhere along the Atlantic coast at Canso, Le Havre and in Cape Breton, most notably at Louisbourg, French fishing stations took root to supply the mother country's demand for cod. Acadia was, then, a colony spatially coinciding with what we now know to be Nova Scotia. Yet today, the preponderance of people in the region who are the descendants of these Acadians live in New Brunswick in a belt stretching from Moncton along the north shore toward Campbellton. How is it that the Acadians have altered their geographical location in this way? How have these people managed to maintain their language and cultural identity when surrounded by the powerful homogenizing force of the numerically more abundant anglo culture? To answer these questions we turn to an Acadian geographer.

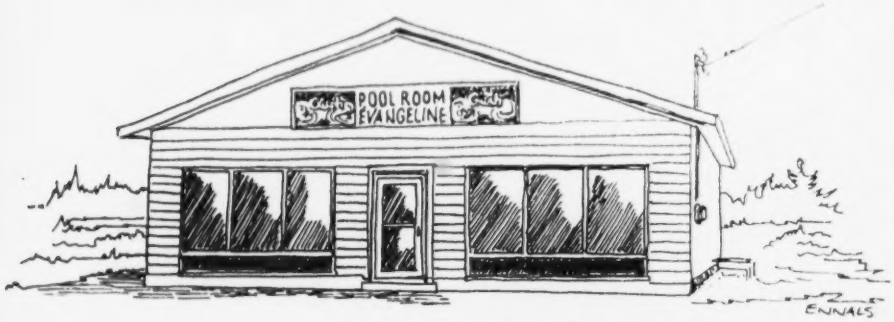
"Acadian" or "Maritimer": A Question of Indentity and Geography

Samuel Arsenault

The modern Acadian identity has been shaped by many forces: the historical experience of a hardy people taming the marshlands for agriculture in the 17th century, and a rich oral tradition that has kept alive the folklore and genealogy of a people. Perhaps the single most important force has been the sense of survival against all odds. The Acadians are, after all, the people who endured "le grande dérangement" — the great deportation. The circumstances that led to this event have much to do with the final conquest of the French by the British in North America in 1759. But the reality of control prior to this final moment is more complex. The Treaty of Utrect in 1713 had given the British nominal control of Nova Scotia even though they made only halting efforts to settle the colony or impose their will on its people. In effect, the British inherited a region that was occupied by a French population indifferent to their political masters at best, and who resisted taking an oath of allegiance to the British Crown at worst. Following the British victory at Louisbourg, and with General Wolfe's successful conquest of Quebec, New France finally fell in 1759. However, as early as 1755, British authorities in the Maritimes perceived the alien population in the region to be a security threat and set about to remove them. Large numbers of Acadians in the Annapolis and Minas area of Nova Scotia were rounded up and shipped back across the Atlantic to France, down the eastern seaboard to ports such as Boston and Savannah, and into the Caribbean — the most famous of these dispersals ultimately producing part of the Cajun population of Louisiana. The mythology of this event has penetrated the popular imagination and mythology by means of Henry

Wadsworth Longfellow's epic poem "Evangeline," written in 1847, which portrays the tragic separation of a young Acadian woman from her lover as a result of the expulsion.

The continuing presence of an Acadian people in the Maritimes today owes much to the fact that some of these deportees made their way home again. It is also important to realize that many escaped the deportation by fleeing into the woods of what is now northern New Brunswick to re-establish themselves and their way of life around the Bay of Chaleur. In the aftermath of the deportation, the Acadians found it convenient to be inconspicuous, and their removal to the margins of the region helped. There, they remained for more than a century developing a dichotomous culture built around either farming or fishing. (See Map 3). By the late decades of the 19th century, their numbers and their self-identity engendered a new episode of "nationalism." What followed was a growing self awareness, enhanced by a pronounced "back to the land movement" and, in the mid-20th century, strong community bonding through the cooperative movement.



Evangeline Pool Room, Caraquet, N.B.

This identity is linked to a set of symbols such as a distinctive flag [the French tricolour with a lone star in the corner], a Latin anthem, and a motto all of which were created by the clerical intelligentsia. Today, the motto is largely forgotten, and the anthem is now only sung on special occasions, but the flag is widely displayed within the region's scattered Acadian settlements. In New Brunswick, the flag is hoisted by the provincial government to symbolize the equality of francophones and anglophones.

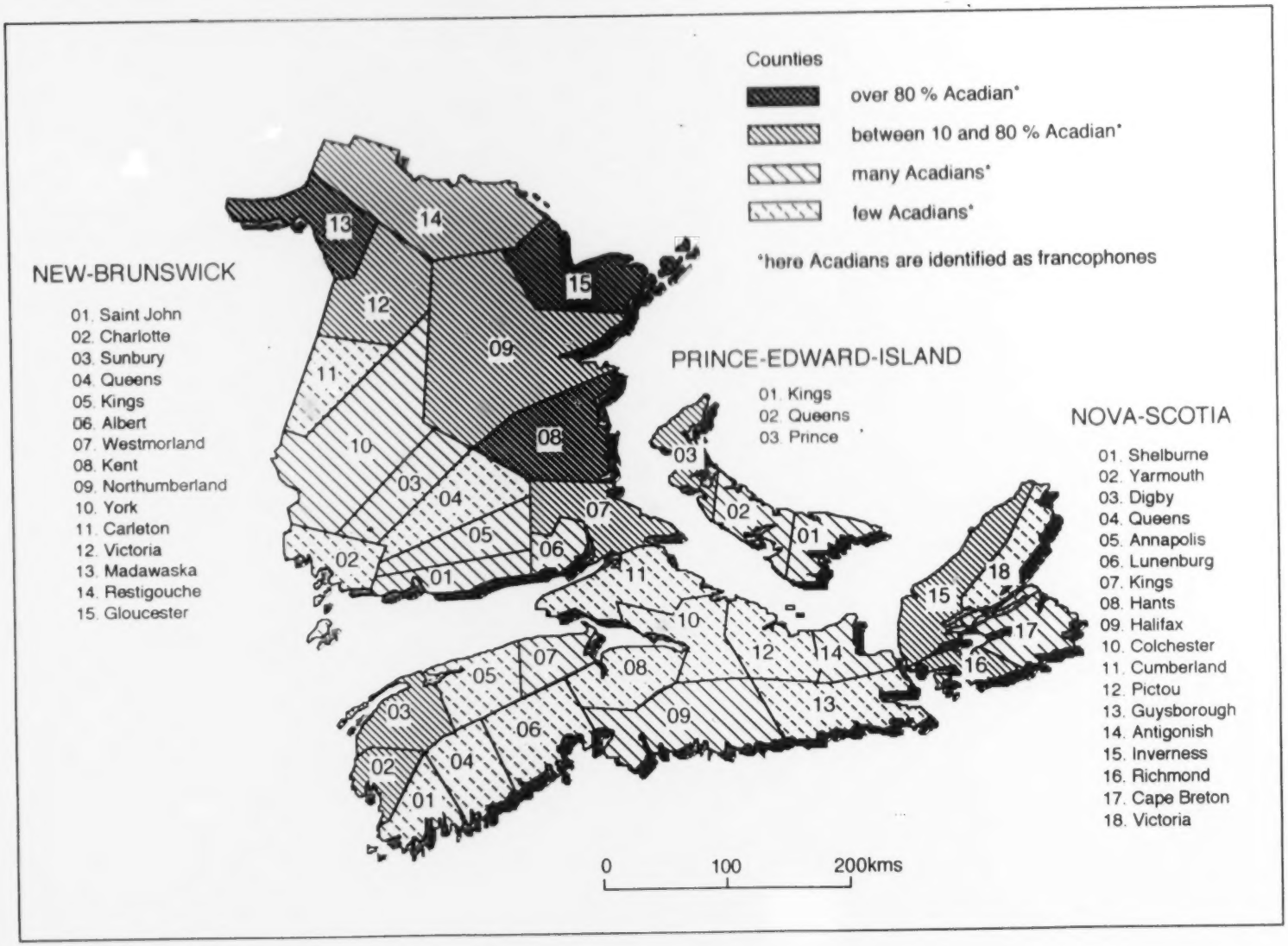
The mythology generated by Longfellow's "Evangeline" is also still very much alive and has a special place as an evocation of the deportation and the implicit virtues of an agrarian society dutiful to its clergy. However, "Evangeline" has undergone considerable change during the process of translation into French, and it was further modified by later authors and songwriters. Nevertheless, its capacity to serve as an icon for Acadia is unparalleled. A recent popular song by the Acadian singer Angèle Arsenault, "Évangéline Acadian Queen," parodies the extent to which the heroine has been corrupted and co-opted for all manner of economic purposes. The song recounts the existence of:

Évangéline Fried Clams
Évangéline Salon Bar
Évangéline Sexy Ladies Wear
Évangéline Comfortable Running Shoes
Évangéline Automobile Springs
Évangéline Regional High School
Évangéline Savings, Mortgage and Loan
Évangéline the only French Newspaper in New Brunswick
Évangéline Acadian Queen

The Acadian identity is also promoted by such organizations as the Société nationale acadienne (SNA) and the Société des Acadiens et Acadiennes du Nouveau Brunswick (SAANB). The purpose of these efforts has been to clearly differentiate Acadians from other groups known collectively as "Les Anglais" or "Les Québécois." Viewed analytically all of the essentials of distinctiveness are now in place, that is the myth of origin provides the historic background, the myth of development explains group superiority achieved through pain and suffering, and the myth of uniqueness justifies self-sufficiency and infrequent inter-cultural contact. This identity now seems secure in its historical and actual manifestations. Today Acadians have firmer control over their resources, education, finances and socio-economic development. They are recognized by "Le Sommet de la Francophonie" (an international organization made up of all French speaking "nations") and participate in many cultural exchanges with France, Quebec, and the rest of Canada.

It is perhaps the author Antonine Maillet who has best recaptured the essence of the Acadian identity and displayed it magnificently on the international stage. Through her work, which consists of several novels, plays, and short stories written since 1958, Maillet has produced a literary biography of a people as seen through their aspirations and hopes. One of the most successful of her achievements is the story of the unforgettable Sagouine, a poor and reserved cleaning lady, without identity, ashamed of her poor speech, but who has dared to express her feelings on every aspect of

Map 3 - Acadian regions in the Maritimes



life in contemporary Acadia. Through the voice of this character, Maillet was able to bring world attention to many aspects of Acadian identity through La Sagouine's "joie de vivre," and "gros bon sens."

Looking at the acclaim Maillet's work has received in Canada and abroad (she was the recipient of the "Prix Goncourt," the French version of the Pulitzer Prize for Literature), one has to recognize the success of her endeavour. Although some have questioned her image of Acadia as being too folkloric, the unqualified success of her award-winning novel Pélagie-La-Charette has now silenced most of her critics. In this novel, the long trek of the character Pélagie to Acadia — the promised land — represents a resurrection of a literary myth which goes back to Marc Lescarbot some three centuries ago. With this work, Maillet has brought her dispersed people full circle to their Acadian homeland, yet ironically, it is a circle that would be only truly complete if the returnees had not found their homeland occupied by New England planters. For Maillet, the 1979 historical novel realizes the dream she had some years earlier about her contribution to the building of Acadian identity:

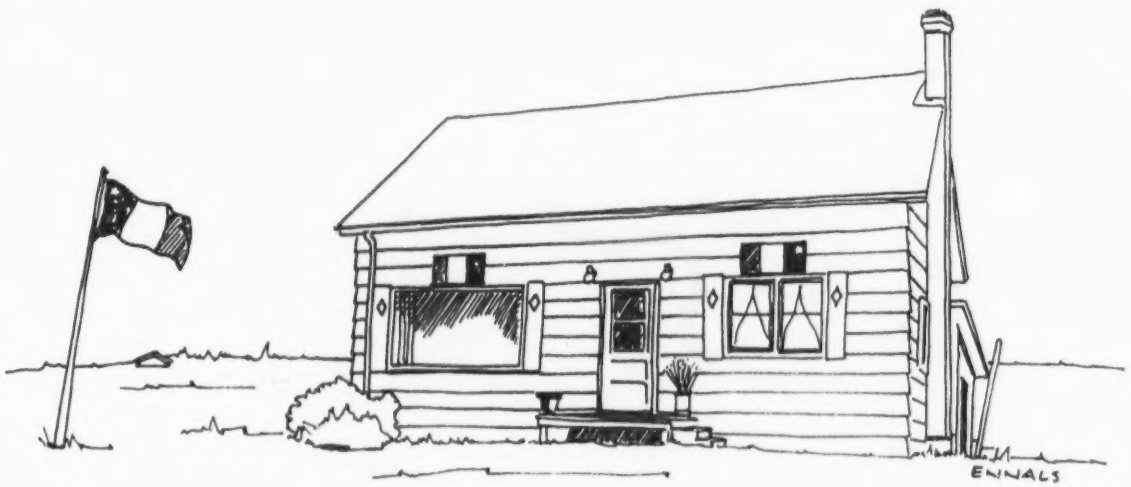
> *J'aimerais voir donner à mon oeuvre dramatique et littéraire le sens d'une transposition poétique de la réalité naturelle et humaine de mon pays.*

The new Acadian identity with its strong sense of place, a sense of region strongly felt in the Acadian peninsula of New Brunswick, is now capable of extending itself to the hearts and minds of all Acadians through time and space:

> *Aveindez-vous de vos trous et venez prendre votre place au soleil. Les outardes rentront du sû, on peut commencer à remuer la terre et jeter nos seines à l'eau. Sortez flandrins, le temps est ay beau.*

The powerful work of Maillet has done much to inspire the Acadian people to strive to realize their collective dream which is to be accepted as an equal partner in the Canadian society.

Editor's Postscript: *The Acadian identity is powerfully linked to the preservation of their linguistic heritage and to their ability to gain a measure of economic and political power within their principal province of residence — New Brunswick. Since the 1960s, the second renaissance of Acadian nationalism and culture has achieved much on all of these fronts. With the election of a provincial government led by Louis Joseph Robichaud in 1960, major reforms in education and other social programmes encouraged the flowering of a new generation of Acadian leadership in politics, business, and education. The cornerstone of this was, of course, the achievement of official status for the French language within the province's government and courts. Although the French language was officially recognized within the province during the 1970s, true recognition was finally entrenched in the Canadian constitution in March 1993 in the Parliament of Canada.*



House be-decked with Acadian flags

Prince Edward Island

In a great many respects, Prince Edward Island stands in sharp contrast to the rest of the Maritime region. As Canada's smallest province, it makes up only 0.1 percent of the national space but enjoys a place on the national stage even though it contributes only 0.5 percent of the national population (there are fewer than 200,000 people). Unlike the remainder of the region, its economy is strongly rooted in agriculture. Its gentler topography, regular cadastre and self-consciously manicured rural landscape coveys a sense of a pastoral orderliness not found elsewhere in the region. A part of this rural heritage has entered the international imagination through Lucy Maud Montgomery's Anne of Green Gables, which has been widely popularized recently by means of television drama. Curiously, fictional Anne has become almost a cult figure in Japan and large numbers of young Japanese women have been flocking to the Island each summer to soak up the ambience of this literary landscape. Islander themselves have a strong sense of their own "way of life" and, as they confront the prospect of constructing a bridge to the mainland, a spirited debate has erupted over the consequence for their culture of such a "fixed link." Proponents of a bridge argue that accessibility on and off the island is essential for the province's tourist trade and for the progressive integration of the economy with the wider region and beyond. Opponents fear that the island will be subjected to even more congestion and tacky tourist haunts.

Prince Edward Island: Garden of the Gulf — The Million Acre Farm

Peter Ennals and Frank Driscoll

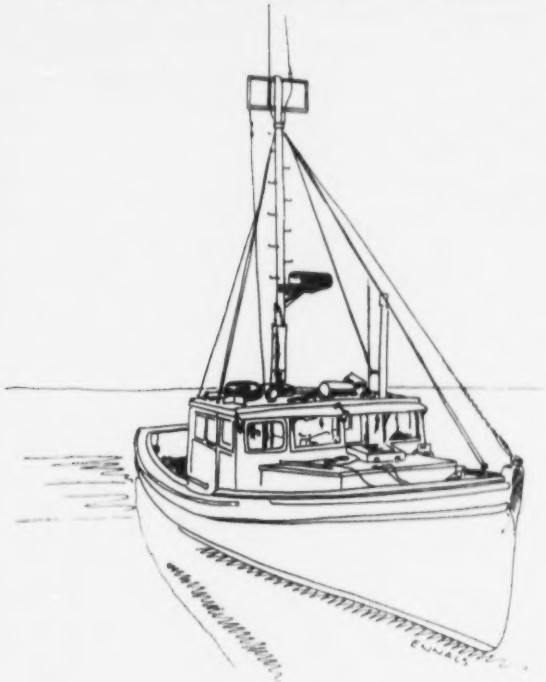
To Canadians, the image of Prince Edward Island (P.E.I.) is of red soils, red hair and red lobsters. Each of these images connects with one of the central aspects of the island's economic life. From the red soils come the tons of potatoes that eventually flow westward into the fast food restaurants and onto the tables of the rest of Canada. The red hair calls forth the vision of a feisty orphan girl, Anne Shirley, who has charmed generations of people at home and abroad and whose fictional life has spawned a tourist industry in homage to "Anne." The harvesting of lobster constitutes one of the more important marine species taken in the waters surrounding the island and perhaps no one species is better suited to amplifying the island's tourist industry. There are other images, however, and no Canadian can forget the place of P.E.I. in the nation's political history, for it was in Charlottetown that the essence of the Canadian Confederation was hatched. Today, the Island's continuing existence as a full-fledged province constitutionally able to exercise political force at a time when Canadian constitutional matters have been at the front of the political agenda, has been an irritant to many who reside in larger, more economically powerful provinces. If Charlottetown has come to embody the point of national creation, it is no small irony that in 1992, some 128 years later, Canadian politicians gathered there again to find a constitutional means to reinforce the place of Quebec in the national fabric. The result of those meeting was the so-called Charlottetown Accord and, far from producing the positive solution intended, this measure was roundly rejected by Canadians in a national referendum.

The first European settlers on the island were a small population of Acadians for whom the island was known as Isle St. Jean. These settlers were an offshoot of the French settlement on Cape Breton and, as late as 1745, they numbered a little over 700 people. After the Treaty of Paris in 1763, the island was taken over by the British who set about to make provisions for an orderly settlement by a new population. In preparation for this step, the island was surveyed into 67 lots of 20,000 acres each. Most of these lots were then alienated by means of a lottery to military officers and others in the government's favour. Unlike the pattern of other Canadian colonies, the Crown retained little land except for a few selected plots called "royalties" which surrounded the principal towns. Instead, under the terms of the lottery, the task of initiating settlement was left to the "proprietors." Few did so, and would-be settlers were forced to become tenants to usurious absentee owners who might from time to time trade away their proprietary right for such unforeseen reasons as to cover gambling losses. Not surprisingly, large areas were slow to develop. The collection of taxes from distant absentee landlords plagued colonial officials, and generally, the colony suffered from the so-called "Land Question" for a full century after 1767.

Settlement did progress in spite of these difficulties. There was an influx of Loyalists following the American Revolution, but overall, the preponderance of newcomers were from the British Isles. Many of those who arrived between 1770 and 1840 were of Scottish

origin whose arrival was linked to systematic resettlement schemes initiated by benevolent British landlords, such as Lord Selkirk, who responded to the general pattern of the Highland Clearances by locating surplus tenants overseas. Thereafter, new immigrants came increasingly from Ireland. Throughout the 19th century, the insularity of the Island and its comparatively good land base allowed even small scale agricultural enterprises to flourish. Moreover, since no point on the island is more than about 15 kilometres from the coast, farmers found it easy not only to move their surplus goods out of the colony, but also to participate seasonally in the fishery or in the colony's important period of shipbuilding. The fact that New Brunswick and Nova Scotia failed to be self-sufficient in foodstuffs during the 18th and 19th centuries gave Prince Edward Island farmers a ready and lucrative market. During the second half of the 19th century, Islanders also benefitted from trade with the United States and with Britain. That said, Prince Edward Island's lack of coal or other industrial raw materials meant that its economy failed to diversify when others did at the end of the 19th century.

Today, the agricultural economy of the Island is strongly focused around the commercial production of potatoes supplemented by mixed dairy, hog, and other livestock production. Potato production serves two markets: table potatoes, many of which are processed as frozen "french fries" or other comparable products, and seed potatoes destined for overseas markets in Europe, Africa, and Latin America. In recent years, the industry has become strongly influenced by a handful of large-scale agri-business firms who place farmers under contract to deliver large volumes of potatoes. The dominance of some firms and the prospect that the independent family farm might be swallowed up by the giants, has resulted in remarkably strict land ownership and land-use legislation in the province. These legislative measures also serve to control off-island ownership of coastal property which has been especially sought after for summer recreation purposes.



Cape Island fishing boat

Tourism has blossomed in the past two decades to become the Island's second most important industry. The attraction for the visitor rests with the Island's extensive areas of sandy beaches which stretch along the north shore, and the province's rural landscape which evokes a simpler past. As noted previously, a key element in the marketing of island is the literary landscape as popularized by Lucy Maud Montgomery. The exploitation of this theme has encouraged innumerable farm vacation, Victorian-era bed and breakfast operators, and a long standing summer arts festival of which the musical version of Anne of Green Gables is the obligatory centrepiece. In addition, there are a profusion of seaside cottage parks, craft boutiques, and country markets that respond to the visitor's nostalgia for an imagined rural past. However, there has also been a good deal of unchecked development and much of it has produced another version of the all too familiar tourist landscape of ersatz attractions and tacky souvenir shops. As an industry, tourism is a mixed blessing for the Island. It does bring several hundred thousand visitors annually and tens of millions of dollars, but the season is remarkably short — about eight to ten weeks — and this does not allow for the development of long-term employment opportunities.

The Island's fishery is almost exclusively an inshore activity. Lobster is the principal species landed and, like many fisheries, the catch must be carefully regulated. Coastal segments are thus divided up into zones and the season for catching species is limited. Fishermen are able to extend their living by integrating the catch of more than one species into a sequential seasonal pattern. Thus in any zone, fishermen might begin by fishing scallops, later switching to the herring fishery, followed by the lobster season. Off Prince Edward Island there is also a limited seasonal tuna fishery. Some also participate in harvesting the inter-tidal zone for oysters, clams, mussels, and Irish Moss [Chrondus crispus — red alga, a source of commercial carrageenin — a gel used

in the food processing industry]. Nevertheless, the fishery in all its forms experiences substantial swings in supply, and Island inshore fishermen must share their waters with counterparts from New Brunswick and Nova Scotia. The density of fishermen on the surrounding waters frequently creates stress and has also put pressure on fish stocks. The severe depletion of cod stocks in the Gulf of St. Lawrence has caused authorities to close certain cod zones altogether in 1993, and the impact on some Island fishermen will be serious.

Prince Edward Island's dependence upon resources of land and sea and on highly seasonal industries such as tourism, has made it especially vulnerable to environmental hazards and external economic forces. Recently, the appearance on the potato plant of a leaf virus injurious to tobacco growers led to an export prohibition into many of the Island's traditional markets. Tons of potatoes had to be destroyed not because they were a threat to human consumers, but because they apparently threatened the economic success of another crop in distant locations. In a similar way, tourism, especially that aimed at international and central Canadian visitors, is subject to the vagaries of overall economic performance. Periods of recession that limit discretionary spending can seriously effect the industry. High rates of unemployment or underemployment are a persistent dimension of the Island way of life.

It is apparent that Islanders suffer a form tension from the pull of their traditional rural way of life and their sense of heritage on the one hand, and their need to find economic stability on the other. Presently, overland access to the island requires the use of a small fleet of ferries servicing two entry points. While there are tolls for users, the service is heavily subsidized by the Federal Government as part of a constitutional provision. Ferry service generally accommodates the volumes of traffic even during the heaviest periods of the summer and during the rugged winter season, though not without delays. Nevertheless, there have been repeated efforts to consider a bridge or tunnel to replace the ferries. Presently, the Federal Government is proposing such a fixed link and has accepted a design. The project awaits environmental assessment review before final political approval. The issue, however, has raised strong protests among the Island population. Proponents feel the project is essential to the health of the economy, and that it will bring hitherto unseen opportunities to initiate a more diverse manufacturing economy. Opponents feel the link will seriously challenge the traditional culture and values. Ironically, the region has a long and not always successful history of "mega-projects" which have been presumed to provide not only a burst of short-term employment, but also a capacity to sustain long-term development growth. Rarely has the notion of cultural preservation intruded on the public debate with quite the force as has occurred in this instance.

Green Gables, Cavendish, P.E.I.

Halifax

Halifax has emerged as the regional metropolis for the Maritime region. Its pre-eminence does not always sit well with people and rival urban centres in the hinterlands. These antipathies reveal the long colonial histories of the region and the fact that localities in the region have been adversaries for generations for every economic opportunity that has come along. Thus, Halifax and Saint John jealously eye each other for the movement of goods through their respective container ports. Halifax is the beneficiary of the lion's share of federal government military and other infrastructural capital. A Halifax university has the region's only medical and dental school. The recent momentum of the city's ascendancy has made it the recipient of a good deal of the national and international convention and tourist trade, of which the NCGE meeting is a typical example. It is fitting, then, that the city and its outlying region should receive special interpretive attention in this guide.

The Old Clock on Citadel Hill, Halifax, N.S.

Halifax and Its Region

Hugh Milward

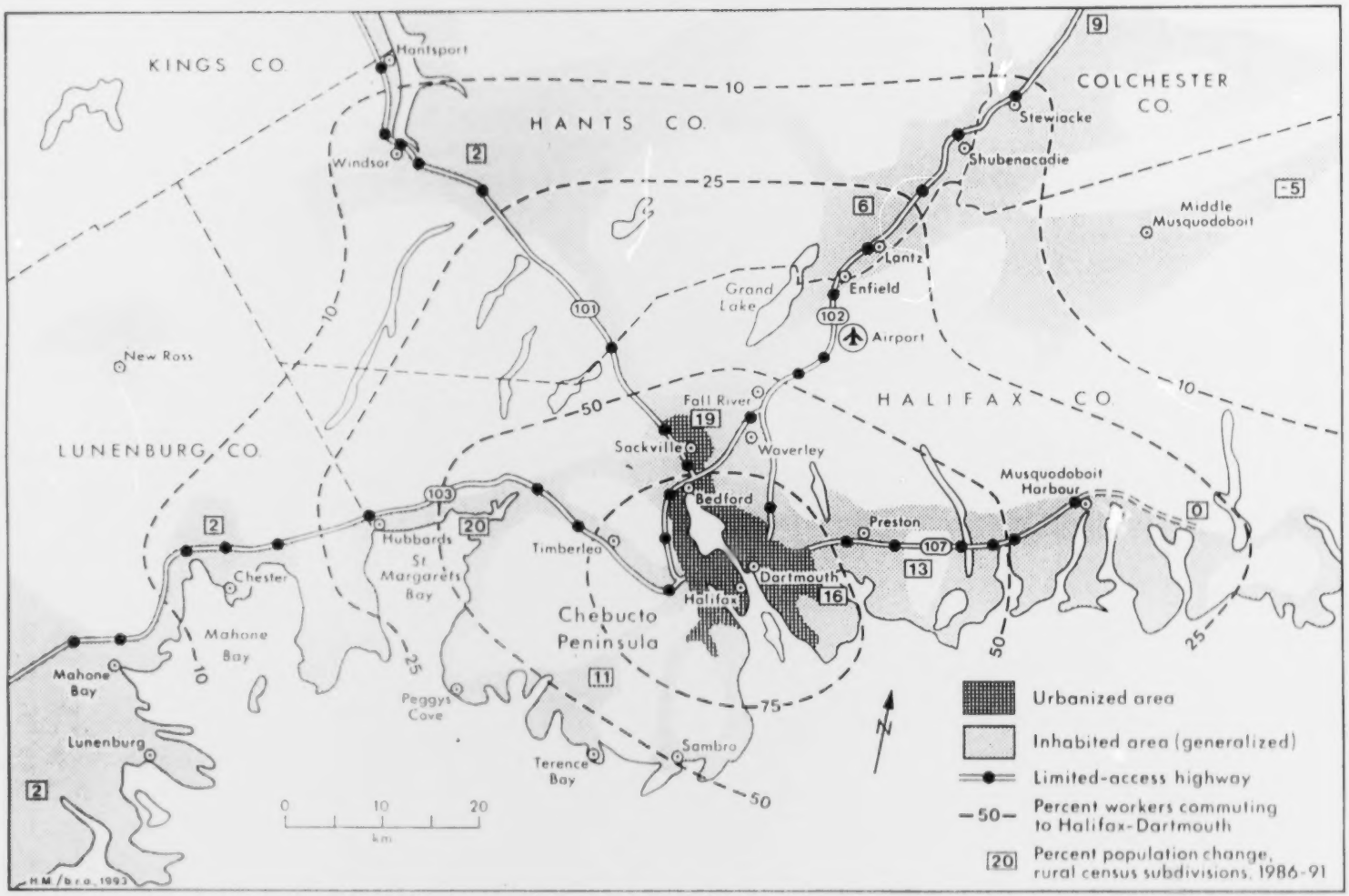
Halifax was founded in 1749 in order to strengthen Britain's hold on mainland Nova Scotia, which had been ceded by France in 1713. France had its supposedly impregnable bastion of Louisbourg on Isle Royale (Cape Breton Island), and Halifax was intended as an equally impregnable naval port and army garrison. This determined the site a defensible peninsula on a long and deep harbour, centrally located along the Atlantic Coast. Lord Cornwallis founded this town with a "rabble" of poor Englishmen (his words), and a sprinkling of German and Swiss Protestants, most of whom were the demobilized mercenaries and their dependents who had formed part of Britain's colonial army. But within a few years, most of the population were hardy and entrepreneurial New England families, engaged in trade and crafts. From the beginning, then, Halifax had a twin role and a split personality — part British military garrison, part New England merchant seaport.

While the defensive site was well chosen, the regional situation did not allow a thriving hinterland to develop. The Atlantic coast — and most of the interior within a 50-kilometre radius — is a forbidding land of stunted spruce trees growing on the bare bedrock of granite, slate, and greywacke. These old, hard rocks have been worn down to a hummocky plateau, tilted toward the Atlantic, then scoured by glaciation. The result is a chaos of lakes, marshes, and meagre forest, ill-suited to both agriculture and forestry.

Most early settlement outside the town were oriented to the coastal fishery. Tiny outports, many founded by Irish Catholics, grew on almost every cove around Chebucto peninsula (See Map 4). Although Peggy's Cove is widely known to artists and tourists, its picturesque and evocative features — truck sized glacial erratics, smooth granitic bedrock, narrow cove, tiny houses, small inshore boats and dories, lobster pots and fishing sheds — are common all around the peninsula. The more sheltered coves of neighbouring St. Margaret's and Mahone Bay were settled by a mix of French, Swiss, and German Protestants, with New England additions.

Eastward from Halifax, the town of Dartmouth was founded in 1750 to protect the Atlantic terminus of the Indian portage route to Cobequid Bay (by way of Grand

Map 4 - Halifax-Dartmouth Area



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Lake and the tidal Shubenacadie River). It remained small and insecure during the 18th century, being attacked by Micmacs on several occasions. Dartmouth enjoyed a brief boom when the Loyalist Nantucket Whalers settled there after the War of Independence. Beyond Dartmouth, the Eastern Shore was poorly suited to fishing, owing to sandspits, bars, and shifting shoals. But the causes of these coastal impediments — glacial till derived from a small drumlin field — provided a suitable base for farming. During the 18th and early 19th centuries, the Halifax market was largely supplied with meat, milk, and potatoes from the farms of Dartmouth, Cole Harbour and Chezzetcook. On land around Preston, Black communities — the residue of a transplanted slave population brought to the colony by early British and Loyalist settlers and of Jamaican "Maroons" imported to work on the defenses of Halifax — struggled to survive on the smaller and rockier parcels allotted to them.

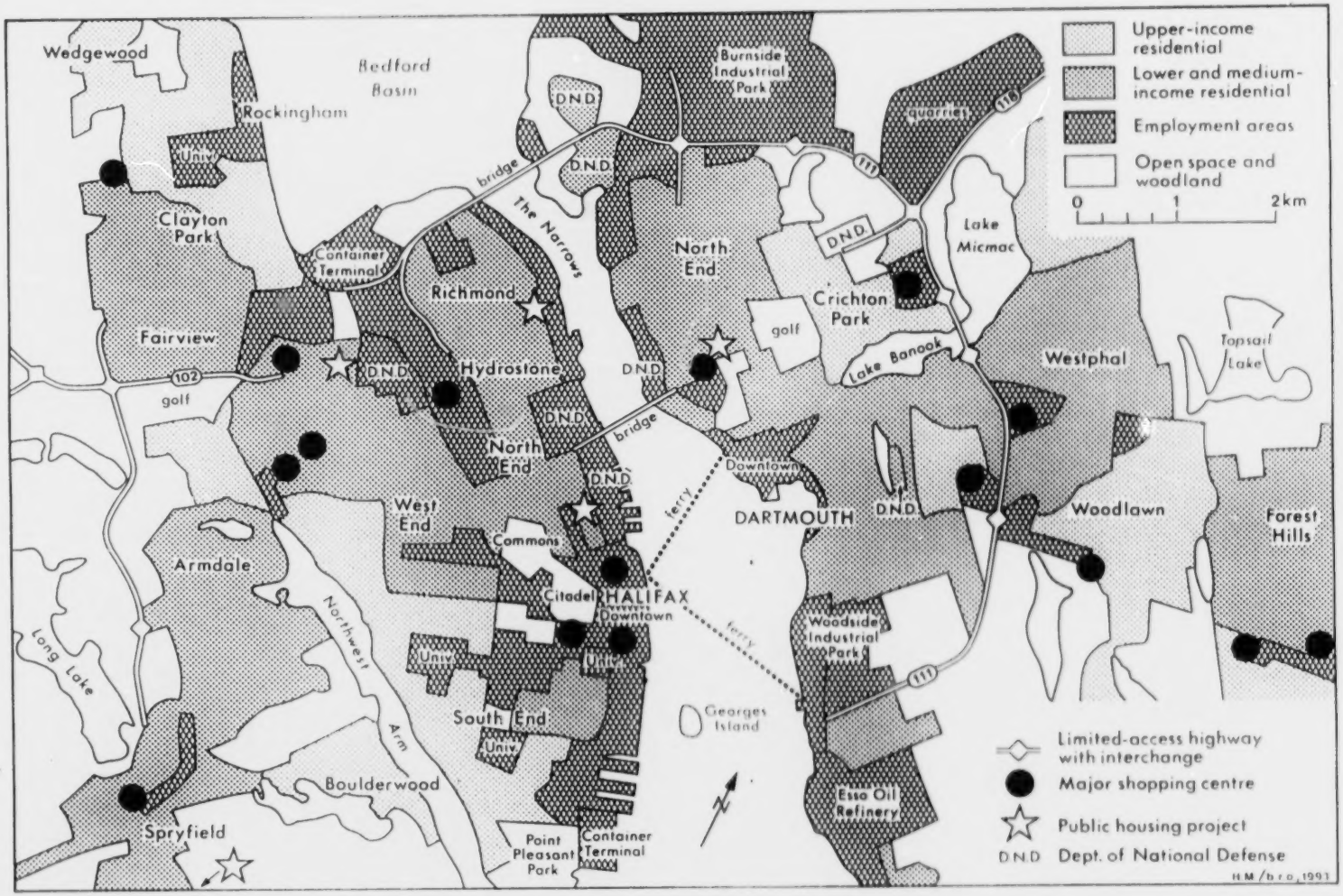
Prior to 1850, Halifax's immediate sphere of influence — its market area and its milk-shed — was confined to a radius within 20 kilometres of the town. Beyond that, there were more tenuous ties along Highway 1 to the Windsor lowland (See Figure 1), a fertile area originally settled by the French, resettled by New Englanders, and favoured with the country estates of some of the province's colonial elite (notably Frederick DesBarres, Surveyor-General and later Lieutenant-Governor of Cape Breton, and John Butler, Paymaster of Nova Scotia). To the northeast, along the Shubenacadie portage route (Highway 2), another farming area was developed by Protestant Irish, who settled along the fertile till plains of the tidal Shubenacadie and Stewiacke Rivers, and later the upper Musquodoboit Valley (See Figure 1). The limits of settlement were strongly determined by the limits of the till lowland, itself shaped by the occurrence of soft sedimentary rocks (sandstone, limestone, and gypsum).

The idea of a canal linking Halifax Harbour to Cobequid Bay was discussed as early as 1767. It was proposed to follow the canoe-route through the Dartmouth lakes to Grand Lake, and thence down the Shubenacadie River, and would require only eight kilometres of artificial cut. Such a canal was attractive to Halifax merchants since it would widen the town's hinterland and reduce its economic dependency on the military garrison. But the grand scheme failed, and failed twice. In 1831, the hardness of both climate and bedrock bankrupted the project after five years of effort. A refinanced and redesigned canal was finally opened in 1861 after seven years of construction, but it was already an anachronism — Halifax had achieved rail connections to both Windsor and Truro a few years earlier. The canal lost money and closed in 1870. It was left to moulder until recent restoration efforts (best viewed at the Fairbanks Interpretive Centre in Dartmouth).

The age of steam was good to Halifax. Local entrepreneur Samuel Cunard acquired great fame and fortune when he established a fast mail service and shipping line to Great Britain. The railway finally brought the provincial capital within effective trading range of the Fundy and Northumberland Strait shores (packet ships had already established its central trading position on the Atlantic shore). Railways and steamships helped to open up the province's coalfields and to make cheap coal the fuel of choice in the town. The Reciprocity Treaty with the United States (1854-66) spurred trade with New England and fostered banking. The city's population increased from 14,000 in 1838 to 36,000 in 1881, but stagnated thereafter with the ending of reciprocity and the relinquishing of manufacturing and financial dominance to central Canada. At the outbreak of the First World War the population was still below 50,000.

Prior to the boom of 1840-70, Halifax had grown little beyond the original townsite of 35 compact blocks, nestled below Citadel Hill (a drumlin much reshaped by military engineers). Small extensions of the townsite had been made to the north ("Dutchtown") and south ("Irishtown"), but westward expansion was checked by the Citadel and an extensive commons. The latter, a typical New England feature, occupied marshy ground at the head of Freshwater Brook, and was used as both cow pasture and military parade-ground. The Commons remain today (See Figure 2), but have suffered much encroachment from public buildings such as hospitals and schools, and from enclosure (notably the Public Gardens, through which a delightful remnant of the brook survives).

Though social stratification was marked in Halifax from the beginning, it did not initially translate into exclusive residential districts. The classes lived cheek by jowl, with much intermingling of land uses and house types. Gradually, the gentry moved uphill towards the Citadel to escape the stink of fish and the lowlife of dockside, and, by the early 1800s, were building fine houses in both Dutchtown and Irishtown. During the summer, the elite avoided the odour and fever of town by retreating to their country estates. Some of these, along the shores of the Northwest Arm (See Map 5), were within easy commuting range by private carriage. Mansions, such as Pinehill, Belmont, Oaklands, and Rosebank, were approached by winding and picturesque carriageways.



Map 5 - Modern Halifax-Dartmouth and neighbourhoods

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The location of industry and, in turn, the evolving social pattern was shaped by the new railway. It snaked in from Windsor Junction along the shores of Bedford Basin, by way of Rockingham and Negro Point (site of the Black settlement of Africville), and terminated north of the Royal Navy dockyard. Around the railway yard and machine shops grew the industrial suburb of Richmond (See Map 5), which was already degenerating into a slum by 1860. A trestle bridge across the Narrows led to similar development in the North End of Dartmouth after 1885, while the "Cotton Factory siding" allowed a ribbon of industry to grow along the shallow valley west of Richmond, between Windsor and Robie Streets. As the northern peninsula became industrialized, the developing middle class increasingly restricted itself to the south and west sides of the Commons. With the introduction of horse-drawn omnibuses (1866) and electric streetcars (1896), fine homes spread rapidly west and south toward the Northwest Arm and Point Pleasant Park. By 1900, the social sectors of South End, West End, and North End were firmly labelled as high, middle and working class respectively. Dartmouth had a similar pattern of social differentiation, though on a smaller scale — the North End was industrial and working class, while better homes developed on Lake Banook and on the hill above Dartmouth Cove.

The First World War brought prosperity and disaster — a prolonged building boom stimulated by military activity and the Halifax Explosion of 1917. The latter occurred when the French munitions ship Mont Blanc collided with a Belgian ship in the Narrows (See Map 5). The Mont Blanc caught fire, drifted onto the Richmond piers, then exploded in the largest man-made blast prior to Hiroshima. More than 1,700 people died, 4,000 were wounded, and 6,000 made homeless. The entire harbour-facing slope of Richmond was demolished. A severe December storm followed, hampering relief efforts, but massive aid flowed in from Boston. Haligonians symbolically repay their debt of gratitude each year by sending Boston a large Christmas tree.

The geographic impacts were several. Most important was the model housing scheme laid out by Thomas Adams, the British planner, and financed by the Halifax Relief Commission. Using garden-city principles, 324 ample mock-tudor houses were built facing common green areas, and provided with a planned neighbourhood shopping centre, currently being restored. The whole is known as the Hydrostone District, after the patent concrete blocks used in construction. Other impacts of the explosion included construction of over 200 additional subsidized homes, accelerated removal of the train station to the city's South End, new dockside industry (the Halifax Shipyard), and the removal of naval munitions to the bunkers of Magazine Hill across the Bedford Basin.

The inter-war period was one long depression in Halifax. There was zero population growth and a new blight of slums crept north from the city centre. The Second World War brought a renewed boom, however, as once again Halifax became the assembly point for Atlantic convoys supplying men and materials to Britain and the European theatre of the War. Accommodations had to be found for 23,000 military personnel, plus many of their families. In response, the federal government built many "temporary" pre-fabricated cottages in northern Richmond, the West End, and North End Dartmouth, all of which remain today. In addition, large Victorian houses were subdivided into flats and rooms, and many hastily-constructed shacks were built beyond the municipal limits at Kline Heights above Armdale, in Spryfield, and on the northern edge of Dartmouth. The legacy of these various expedients is still reflected in today's housing patterns.

Halifax and its suburbs maintained their economic buoyancy through the '50s and '60s, owing to the continuing importance of the military in the Cold War the growing provincial civil service and the impact of trucks and automobiles in focusing wholesale and retail trade on the city. From approximately 60,000 people in 1911, the population increased to 90,000 in 1941, 138,000 in 1951, and 214,000 by 1961. The increased population, of course, was not concentrated in the same area. Central areas began to decline, as the family car allowed many to achieve the middle-class dream of a ranch-style home in the suburbs. After 1955, the Macdonald Bridge stimulated much tract housing sprawl around Dartmouth, which then annexed the new areas and became a city in 1961. In similar fashion, Halifax annexed mainland suburbs in 1969. A planned bridge from Halifax across the Northwest Arm was blocked by pressure from the South End's élite, who quite naturally prefer to maintain the privacy and quietude of their recreational preserve. To see why, climb the Memorial Tower at the Dingle Park.

The Dartmouth side has continued to develop more rapidly than the Halifax mainland, particularly with the opening of a second crossing, the MacKay Bridge, and connecting circumferential highway in 1971 (See Map 5). One reason for this growth is the wider distribution of glacial till which allows cheap development of roads, sewer lines, and house foundations. No blasting of slate or granite is required as in Halifax. The importance of

till for moderately-priced housing was recognized by private developers, the provincial Housing Commission, and the authors of the 1975 Regional Development Plan. All three groups focused their attention on till areas east of Dartmouth and along the Sackville River at the head of the basin. Large public land assemblies in these areas (Forest Hills, Sackville Lakes and Millwood) have enabled the development of well-planned residential areas with modestly priced lots, which now house 50,000 people. An additional 25,000 live in neighbouring till areas developed privately (eg. Colby Village, Eastern Passage). Although not on till, Bedford has grown into an exclusive community at the head of the Basin, symbiotically linked to Sackville. It began life as a staging post, developed as a railway commuter suburb, and then acquired major shopping centres owing to its position as a road hub. It graduated to town status in 1980.

The suburbanized areas of Sackville and Cole Harbour, though part of Halifax County municipality, have autonomous "community councils." Sackville has given serious consideration to town or even city status. However, the provincial government is concerned to avoid municipal fragmentation and to reduce inter-municipal bickering over transit, waste disposal, and sewage treatment. There is also the problem of rivalry between competing industrial commissions, each

Table 1. Population of Census Sub-divisions, 1961 - 1991 (000s)

	1961	1971	1981	1991
Halifax City	92[1]	122	115	114
Dartmouth City	47[1]	65	62	68
Town of Bedford	-	-[1]	7	12
Halifax County:				
Cole Hbr., Eastern Passage, Herring Cove (sub. D)	44[1, 2]	19[3]	26	37
Sackville, Fall River (sub. C)	9	17	34	47
Timberlea, St. Margaret's Bay (sub. A)	5	6	8	11
Chebucto Peninsula (sub. B)	9	11	12	15
Preston to Musquodoboit Hbr. (sub. E)	8	11	14	18
Total Census Metropolitan Area (CMA)	214	251	278	321

[1] Halifax annexes mainland areas from sub. D
[2] Dartmouth annexes areas from sub. D
[3] Town of Bedford created from portion of sub. D

promoting its own heavily subsidized industrial parks. The main contenders in the game are Dartmouth's Burnside Park — the most successful — (See Map 5), Halifax's Bayer's Lake Park, and the county's Aerotech Park. Although a Metropolitan Authority has existed since the 1970s to co-ordinate municipal development policies and operate certain utilities, it has been deadlocked on various issues. The provincial government decided in late 1992 to impose a solution — a single metropolitan municipality, comprising the two cities, Bedford, and the entire county to be instituted by 1994.

The proposal makes sense in functional terms. As Map 4 shows, commuting links between the central cities and the county are very strong. The 100-series highways have promoted exurban development in four corridors, with strong commuting (over 25 percent of employed residents) extending 50 kilometres or more. Along Highway 102 the International Airport provides a secondary employment node of 5,000 jobs, which has promoted growth at Waverley, Fall River, Enfield, and Lantz. The airport is expanding rapidly as the hub for Atlantic Canadian air routes and is attracting high-tech manufacturing companies (Litton, Pratt and Whitney) to its Aerotech Park. It will increasingly draw the urbanized corridor of East Hants into the metropolitan orbit.

What of the future for Halifax and its region? As Table 1 shows, the metropolitan population continues to grow at a healthy pace, and, at 321,000 people, has now far outstripped former rival Saint John. Some see Moncton as a future business rival, since the latter is central to the Maritimes' road network. But Halifax has the airline hub, a major port, and the status of capital city. Although it is unlikely to enjoy the oil-gas boom so eagerly anticipated in the late 1970s, there are small producing offshore oilfields, and the large Venture gas field will surely be developed eventually. Halifax has become the trade and service centre for all Nova Scotia, with many high-level functions such as universities, hospitals, and law-courts. With these and the constant incomes provided by military and government employment, it is largely insulated from the employment cycles which periodically devastate the rest of the province. In 1991, 34 percent of the Census Metropolitan Area's employment was in services, and 17 percent in trade. A further 17 percent was in public administration and defense; 9 percent in transportation and utilities (mainly the port); and only 7 percent in manufacturing. Other categories were finance (6 percent), construction (6 percent), primary (1 percent), and unspecified (3 percent).

Growth brings change, and the self-contained and rather parochial city of the pre-1939 period has changed almost beyond recognition. It now shares many concerns of other large centres, including racial tensions, ethnic diversity, traffic congestion, gentrification, urban crime, and heritage conservation. Government intervention to improve the environment has been strong, however, resulting in the Scotia Square redevelopment scheme (late '60s), Historic Properties restoration (early '70s), the Waterfront Development Corporation (late '70s), and the Mainstreet Revitalization program ('80s). Renovation of older housing areas was successfully promoted by the federal Neighbourhood Improvement Program (1974-83), and city planners have used downzoning to deter redevelopment and stabilize residential areas.

Thanks largely to such intervention, many older parts of Halifax and Dartmouth remain livable and attractive. The downtown area too has been revived without undue use of the wrecker's ball, and has taken on added life through the bars and restaurants of Argyle Street and the tourist activity of the harbourfront. While the centre is as attractive and vital as at any time in the past, the woods, lakes and shoreline of the periphery are increasingly marred by haphazard commuter development. The focus of planning control should shift to these areas.

The Annapolis Valley

One of the most striking and dislocating observation for any visitor from the heart of the continent is the way in which one comes upon the city of Halifax-Dartmouth out of a curtain of jumbled rock and bog. There can be few cities on this continent that reveal a similar absence of an immediate agrarian hinterland. Indeed, this has always been one of the city's problems. In colonial times, provisioning the city required merchants to travel many miles to distant agricultural areas for sources of food and livestock. One of the principal supply areas was, and is, the Annapolis Valley which lies on the other side of the peninsula. The physical and cultural landscapes of these two areas are profoundly different. As we will see, the Annapolis Valley is a comparatively bucolic environment of orchards, vineyards and orderly rural service centres.

Down the Length of the Annapolis Valley

James E. Taylor

If you will permit me to round off the distance which runs the length of the valley it is 150 kilometres from Wolfville, situated at the eastern end, to Digby, located on the western terminus. It is widest on the eastern, Minas Basin entry at 15 kilometres and tapers at the west with a width of about five kilometres at the head of St. Mary's Bay.

What makes it a valley? Two separate stretches of upland formed at different times flank the north and south sides of this small sliver of lowland. Firstly, to the north is a feature which, for generations, we have called the North Mountain — all 200 metres of it! Certainly not a mountain by an Albertan's standards or a native of Washington state, but it's the highest piece of elevated land we have, and to call it North Hill just doesn't sound appropriate. The first question my geography students ask me when we are airborne is: "Where is the mountain?" The formation consists of Triassic and early Jurassic basalt which curls away from Minas Basin at Cape Split and disappears into the cold Fundy waters at Brier Island. It is a fascinating geological feature. You can see the different lava flows sandwiched on top of each other when the sun strikes the face of the vertical cliffs along the Bay of Fundy coast. Beautiful pockets of amethyst and agates are found each spring after the frost pushes fresh rockfalls into the Bay. The entire length of the cuesta is stitched with fault lines running into Fundy and perhaps the most dramatic display of this phenomenon is to see Brier Island sliding up into the Bay of Fundy with Long Island just beginning to make its move. This is perhaps most noticeable from the air but is also discernible from a standard road map. At the other end of the valley, a flight over Minas channel reveals the basalt which caps the earlier Triassic sedimentary rock found on the valley floor. The scarp slope of the North Mountain formation forms the north side of the Annapolis Valley.

To the south is a more substantial formation but no more dramatic in presentation. The South Mountain which girdles the valley for the most part represents an ancient granitic outcrop dating back to the Devonian Period. This batholith dominates much of the southern mainland of Nova Scotia and provides a very resistant boundary along the south line of the Annapolis Valley. Most of the granite found here is the grey speckled variety. With the solid intrusion in place on one side and the massive basaltic cap on the other, it was left to the Annapolis and Cornwallis Rivers to do the lion's share of dredging out the Triassic sandstones and shales to the west into the Annapolis Basin and east to the Minas Basin, respectively. Both rivers rise out of Caribou Bog, one of the largest bogs of Nova Scotia. With an estimated age of 11,000 years, the bog, near Aylesford yields 7500 tons of peat annually for horticultural uses.

The valley floor presents a cornucopia of features and serves as an ideal field laboratory for people interested in physical landforms. Evidence of earlier fluctuations in sea level can be seen where ancient sand bars now support clumps of birch trees and salt marshes proliferate throughout the old river channels. On the other hand, the Annapolis Basin was flooded with the melting of the last Ice Age where the river used to spill out through Digby Gut. You will not find many well-developed deltas at these river mouths, unless you consider the Minas Basis itself one gigantic delta where the silt and mud from four or more large river systems are flushed and transported twice a day by the largest tides on earth. Today, an elaborate network of dykes and dams keep the tides at bay at the eastern extremity while at Annapolis Royal, on the western end, the tides are harnessed by a tidal power plant using a specially designed turbine to generate electricity from a lower than usual head of water. This station is an experimental model which, if constructed on a serious scale along a number of sites in

Minas and Cumberland Basins, could generate enough power to feed the eastern seaboard. The tidal power plant at Annapolis Royal is open to visitors, by the way.

The glaciers of no fewer than four advances of the Wisconsin glacial stage have also left behind a variety of landforms which contribute to the everyday lives of the residents of the valley floor. Chatter marks and striations point out the path of the ice, while erratics, eskers, deltas, boulder fields, kettles and kames, drumlins, and glacial till dumped in an unsorted mess all litter the bottom and flanks of the Annapolis Valley from one end to the other. Add all this to the earlier sediments which were deposited when we were much closer to North West Africa and the conditions combined to provide accommodating sites for settlement dating back to the indigenous members of the Algonquian people. A number of native bands still reside throughout the Valley and farmers periodically sift out beautiful arrowheads, some made from local agate and jasper. Pre-European campsites have been located where the ancestors of the Micmac dined on local salmon and shellfish under the protective gaze of spirit Glooscap.

Coventer's Church, Grand Pre, N.S.

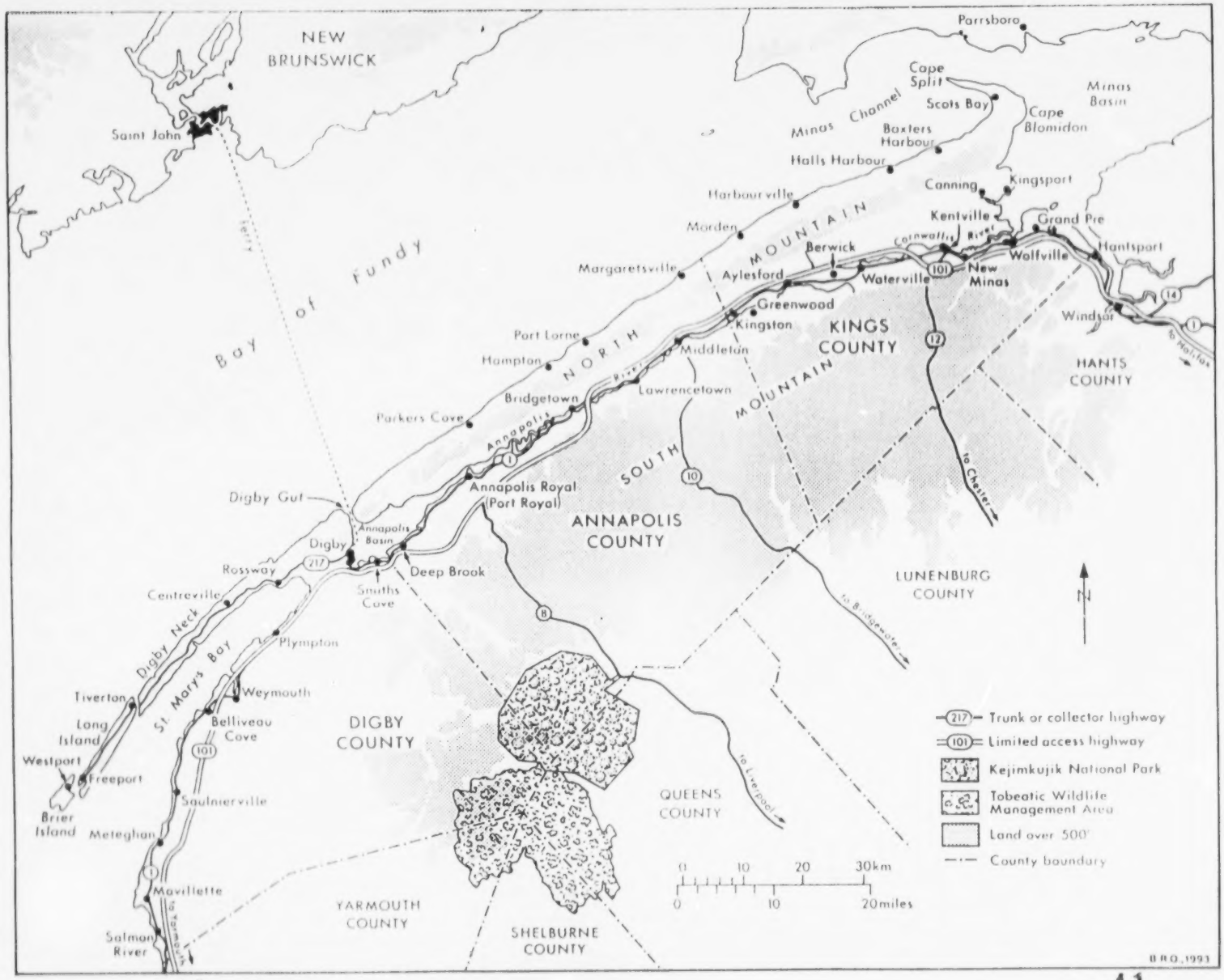
Despite the fertile soils which lay in wait for later settlement, both ends of the Valley were the earliest established sites for the first European inhabitants. The European presence was established first by the French who erected a fortification just west of Annapolis Royal. The Habitation at Port Royal proved to be a more hospitable site than the first attempt, which was made on a tiny island in the St. Croix River near St. Andrews, New Brunswick. From this location evolved the Acadian presence which, despite a series of set backs and adversity, spread within a generation or two throughout the Annapolis Valley. At the other end of the valley, the early dykes and aboiteaux built by these people were the forerunners of aggressive dykeland reclamation which continues to this day.

There are a number of observation points all along the North Mountain and many of the roads which dart north and south of Highway 101 will provide many interesting views to visitors. For example, from the vantage points of the Look-off near Canning, one can see the expansive flat land, protected by the running dykes and dams, which is still farmed as it was before the dreadful expulsion of 1755 when an estimated 6,000 to 8,000 people were forced off their lands by the British. The story is told in more detail at Grand Pré National Historic Park just east of Wolfville. It is interesting that these people elected to inhabit and work land which required so much work to keep it safe from the tides, but on the other hand, these wide estuaries of fertile soil were quite devoid of large trees which were the other curse to settlers forced to clear land.

The other early, and eventually predominant, European presence in the Annapolis Valley were the British settlers who filtered in from American Colonies, especially from New England. The first of these waves from New England states were the Planters, settlers recruited specifically in the 1760s to re-occupy and cultivate the fields abandoned by the Acadians. Shortly thereafter, a second wave of newcomers were the United Empire Loyalists, people choosing the more conservative political climate of a British colony over the turmoil of the revolutionary philosophies of their American brethren. Later in the years following the Napoleonic campaigns, a more general British immigration attracted would-be settlers from all parts of the British Isles.

From then until now, military bases have played a significant part in the history and economy of the Annapolis Valley. Port Royal and Fort Anne on the western approaches provided limited protection for French and English alike during the earlier history of the

Map 6 - The Annapolis Valley



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area. These remain as surviving or reconstructed sites for visitors to explore. Further down the Valley en route to Digby, Canadian Forces Base Cornwallis provides a significant economic pillar for local businesses as it has for several decades. Towards the eastern end, Canadian Forces Base Greenwood serves as a major site for Canadian military aircraft and they still practice their "touch and go" most every day and host thousands each year to an annual air show. Finally, Camp Aldershot on the outskirts of Kentville was the last training camp for thousands of Canadian soldiers before they boarded the trains for Halifax and thence across the "pond" to rendezvous with history during two World Wars.

Since the valley floor has a good mix of soils and a favourable microclimate, agriculture continues to form the main stay of the economy. Even during the Golden Age of Sail, for much of the 19th and early 20th centuries, river ports were busy shipping apples to all corners of the British Empire. Apples still occupy a fair chunk of the agricultural industry and the industry is supported by a research station located in Kentville. Recently, a number of vintners have hung out their shingles in the valley and with some success. There is one at Grand Pré and another at Falmouth and both have wines available. Agriculture still provides the backbone to much of the activity in this valley and anyone who drives through with the windows down during the last week of May and the first of June can tell that the apple is at the centre of the agricultural activity. The processing of apples has become important as evidenced by the firms occupying the Industrial Park at the west end of Kentville. These firms export apple products such as canned juice, cider, and frozen baked goods well beyond the borders of Nova Scotia. There are also some large pork and poultry producers and a diminishing dairy industry. Much of the land is taken for fodder crops but there has been some progress with root crop production in some areas.

Evenly distributed along the valley floor is a series of small towns, the remnant of a pre-automobile urban system (See Map 6). It may help to provide a thumbnail sketch of each to indicate something of the functional diversity that makes up this urban system. Wolfville is home to Acadia University, the successor to a Baptist academy and college founded in the mid-19th century. Kentville serves as the Shiretown of Kings County. It used to serve as a spa where soldiers who suffered from mustard gas during WWI were sent to recuperate, and later the sanatorium provided facilities to those with tuberculosis. Kentville was also a transportation node after the railway took over from the ships for transporting people and goods from the valley to Halifax and other parts of Canada. The highway strip between Wolfville and Kentville has been especially subject to recent subdivision and commercial development indicating that recent economic growth in Kings County has centered on this section of the valley. Highway accessibility to Halifax, the lifestyle opportunities of the valley particularly for retired people, and the presence of a university have greatly influenced this phase of growth. Recently, the Michelin Tire Company opened a new plant just west of Kentville, thereby keeping a number of our young people "at home."

Continuing west, the Town of Berwick, also an agricultural service centre, hosts three major food processing plants. The meat packing plant, fruit and vegetable processing plants, and a large bakery have encouraged Berwick to style itself "the most industrialized town in Canada." Located nearby are several service facilities such as the County Correctional Centre, the Nova Scotia Youth Centre, and the Waterville Rehabilitation Centre. Also nearby is Oaklawn Farm Zoo, the largest zoo east of Montreal. Kingston, another service centre is near Canadian Forces Base Greenwood and houses many people who work on the base. Middleton, also known as the "Heart of the Valley," is the next town. It serves as a rural service centre and reflects its agrarian dependency by hosting an annual Cider Festival which is gaining in popularity each year.

Lawrencetown is the site of the College of Geographic Sciences. This small, highly-specialized college began by training surveyors and cartographers. Today, its orientation reflects the change toward GIS, and students receive an intensive training in computer cartography and the application of these techniques to resource management. It is perhaps not surprising that near Middleton and Lawrencetown are Lands and Forest nurseries and a water bottling plant, all reflecting aspects of the resource based economy of the valley.

Bridgetown, situated on the Annapolis River, was a significant river port in the 1800s, but the advent of the steel hull brought most of the activity to a close. It remains an attractive town especially to retired people and has developed a small arts community. An even more obvious centre of tourism and culture is Annapolis Royal, celebrated as one of the oldest incorporated towns in Canada. Aside from the tidal power dam, the town is noted for Fort Anne which lies just a tad upstream from Port Royal. The King's Theatre and the Annapolis Royal Historic Gardens and a string of up-scale bed and breakfast hostelries represent the town's self-conscious effort to exploit its history and grace. En route to Digby

is the Upper Clements Theme Park. This venture, built with a heavy infusion of public money, signifies the role of tourism in the regional economy of this end of the valley. The park's theme aims to interpret the natural and cultural life of the surrounding area, but like many examples of this genre, it has not met with universal acceptance nor commercial success. Just across the road is a wild life park which has a number of local indigenous animals available for view and study.

The last major town at the end of the Annapolis Valley (or at the beginning) is Digby. Primarily a fishing community (the town's scallop fleet is well known), its proximity to the ocean has also allowed it to become a resort area with a number of excellent facilities in the town and nearby. The important ferry service linking Digby across the Bay of Fundy to Saint John, New Brunswick, makes it one of the entry points to Nova Scotia for travellers from the United States and Canada. Complementing the town's nautical life are a number of successful whale watching excursion operators. It is not uncommon to see porpoise playing in the harbour.

Few parts of the Maritimes exude the air of prosperity that can be seen in the Annapolis Valley. The strength of an enduring agrarian tradition and the peaceful orchards and pastoral by-ways distinguish this sub-region from most other parts of Nova Scotia. Set apart from the sea but accessible to it, the rhythms of life here are focused on the stability of the land. It is hardly surprising that the Acadians, who were so cruelly forced off these lands, should have lamented their fate so profoundly.

Nova Scotia's South Shore

The South Shore is the region stretching westward from Halifax around the great coastal arc of peninsular Nova Scotia toward Yarmouth. Much of this coast is a rugged, sparsely settled and remote area too easily overlooked and avoided by visitors. Yet, its scenery and its remarkable settlement history offer much for the "geographic" traveller. For visitors who plan their entry to Nova Scotia by means of the ferry from Portland or Bar Harbour, Maine, it is possible to traverse the South Shore en route to Halifax. For others, the choice might be a day trip from Halifax that probes along the coast as far as Lunenburg. The survey that follows has been specifically designed to accommodate such a traverse. Depending upon the visitor's starting point, the chapter might be read from start to finish, or in reverse order. This chapter has been produced by a geographer who is herself a frequent visitor to this coast, and whose own sense of delight is reflected in the vivid images that she paints in revealing this part of the region.

Touring the South Shore

Elaine F. Bosowski

Welcome to the South Shore of Nova Scotia, where settlements are sparse and rocks are a plenty! Untouched by crowds, having many beaches and coves, each secluded from one another, the South Shore is noted for fishing, berrying and clamming - indeed, there are places where "within one hour, you can fill a five gallon pail full." Here the sea is both a source of the scenic beauty which annually attracts summer visitors and the giver of life which helps to sustain those who call this area their home. Here and there along this shore, there are remnants of many old fishing villages, some with buildings long empty. Yet, they still stand, mostly undamaged, as testament to those who originally settled the rough and rocky coastline. If you choose to explore these sites, take caution because the warning signs are not always posted on unsafe structures. Here too, people paint their homes with brilliant colours — metallic blue and bright pink — as if to give some colour to the foggy dull greys so common during many months of the year. Often times, one can only hear the ocean made invisible by the fog.

South Shore people live close to Nature. They know what they need and what they don't, and the knowledge is passed on from generation to generation within families who have become intricately entwined and deeply rooted. Circumstantially, life on this coast is harsh. Employment is tied closely to the resources of farm, forest, and sea — none of which has yielded great wealth. Cold damp winters, fog, rough seas, and isolation from larger centres must surely test this population. Yet for all of that, people remain welcoming, helpful, and open, always willing to aid the newcomer. As you travel through the South Shore, pause to ask about local swimming holes, clamming beds, or berrying spots. No visit to this shoreline is complete without having a chance to experience first hand what summer visitors have found to be the most striking coastal feature — beaches without sand, where rocks are rolled along over one another creating a sound that in a heavy fog, is a haunting reminder of the presence of the sea. Along these rocky beaches is a good place to be on the lookout for gray, harbour, and harp seals who frolic off shore.

What follows is a guide to selected points of interest along the South Shore. Points are listed sequentially as they would be encountered on a route from Yarmouth to Chester generally following the tourist highway known as Nova Scotia's Lighthouse Route. Travellers will need to appreciate that exploring this coast can take time. Note that Highway 103 sweeps along touching the head of the deep embayments at towns like Tusket, Barrington, and Selburne, but those who want to see the more remote coastal villages will need to get off the highway from time to time to follow the loop roads that connect to characteristic outports such as Wedgeport, Cape Sable, Clark's Harbour, and Lockport. Panning, which takes into account time and distance, overnight destinations, and allowances for weather, is advisable.

Yarmouth (pop. 7,600), "Gateway to Nova Scotia," is served by ferries from both Bar Harbour and Portland, Maine. This starting point also allows visitors to enter Nova Scotia by means of two "scenic routes" — either through the Annapolis Valley, or around the South Shore. Although there has been a sequence of occupants, including Micmac, perhaps the Norse (discovery of a runic stone is suggestive), French, and New England settlers, it is the latter that gave the place its name and character. Modern Yarmouth was founded in 1761 and has long had strong links with like towns across the Gulf of Maine, eg. Machais, Maine. Returning Acadians in 1767 and an influx of Loyalists during the 1770s gave impetus to the town which became an important staging point for shipbuilding, fishing, and trade throughout the era of sail. Indeed during the late 19th century, Yarmouth had the second largest registry of shipping tonnage in Canada. Yarmouth still serves as a major operational point for the lucrative fishery on the George's Bank and is the point from which fishery patrols monitor boundary violations and air-sea rescue requirements. The cultural landscape of the town reflects its nautical past. Visitors might explore the town's museums, the Cape Fourchu Light (built in 1840), or take a tour of the Bonda Knitting Mill, which specializes in tartan children's wear, kilts, etc.

Tusket is a settlement that arises from Loyalist transplanted from New York and New Jersey (c. 1785). For those with a good eye for regional vernacular architectural detail, the built landscape reveals these connections. Here, one can also see Canada's oldest surviving courthouse and gaol which dates to 1805.

The Pubnicos are a string of five related villages, each carrying a geographically descriptive prefix. These settlements date to the 1650s and are among the oldest Acadian villages on this coast, the history of which is detailed in Le Museé Acadien (Acadian Museum) at Lower West Pubnico. Interspersed later was a colony of New Englanders who arrived after 1761.

Dories stacked on board a 'Banks Schooner'

Cape Sable Island marks Nova Scotia's most southerly point and also one of the most hazardous coastal zones. Large numbers of ship wrecks lie in the waters off the island. The island has also given its name to the form of fishing boat used generally throughout the Maritime inshore industry. The Cape Island Boat was developed at the turn of century at Clark's Harbour and its remarkable stability and ease of handling in rough shallow waters has made it ideal for fishermen throughout the region. The Archelaus Smith Museum documents this boat building history.

Barrington is a settlement that despite its name began as an Acadian settlement. In 1755, a force of New England troops attacked the village of Le Passage, as it was then called, burned the buildings, then deported the inhabitants to Boston. Subsequently, in 1761 the site was re-colonized by people from Cape Cod and Nantucket. Several surviving buildings reveal these connections, especially the Meeting House of 1765 which served as a location for town meetings and Congregationalist worship. The water powered Barrington Woollen Mill, built in 1884, only ceased operation in 1962.

Shelburne (pop. 2,300), despite its present small population, was founded "overnight" when 16,000 Loyalists, including some 2,000 black Loyalists, found temporary refuge here at the close of the American Revolution. Echoes of the 18th-century town that they built can be seen in the architecture, much of which has been restored during the past 20 years. Eventually, a lack of good farmland or any promising economic base induced people to abandon the town. Shelburne did develop a strong shipbuilding base and, in later years, was celebrated for its many yacht building yards. Donald Mackay, best known for his work in designing clipper ships in Boston, was born and trained in Shelburne. Visitors will find a number of restored buildings and museums open to the public, including the John Williams Dory Shop, the Ross-Thompson House, the Randolph-Williams House and the Shelburne County Museum.

Lockeport is home to one of the most modern fish-packing plants on the continent. The concentration of the trawler fishery at towns like Lockport has greatly altered the nature of life in formerly viable smaller outlying settlements which have been forced into decline. Over the past two or three decades, this phenomenon of outport decline and abandonment and the general isolation of the area has made the locality attractive to Vietnam era draft resistors, some of whom remain, to "isolationist" religious groups and cults, and to smugglers who see the sparsely settled coast as an ideal entry point for illicit drugs.

Liverpool (pop. 3,300), like its namesake, is located at the mouth of the Mersey River. Once the site of a Micmac village, Champlain landed here in 1604, and, in 1759, 70 families from Connecticut established the town. The town was a particularly active privateering refuge during the Revolutionary era and visitors can learn of this at the Simeon Perkins and Captain Barss Houses. Today, the hinterland surrounding Liverpool is strongly influenced by the Bowater-Mersey Forest Products operation.

Located inland from Liverpool off Highway 8 is Kejimikujik National Park, established in 1965, as 321 km^2 of lakes, rivers, and mixed conifer and hardwood forest. The former gold-mining area has now been turned back to a wilderness recreational area and habitat for a diverse wildlife population. For those who are canoeing or kayaking enthusiasts, or who are keen naturalists, "Keji" is a rewarding park. Here, one engages in wilderness camping accessible only by canoe, or examines a 400-year-old hemlock grove, examples of coastal plain plantlife. Indeed, there are several species found here that are the same as those found on the coastal plain of the Florida panhandle, eg. shrubby inkberry holly, netted chain fern, pink flowered St. Johns-wort, water penny-wort, small bladderberry, yellow-eyed grass, and Virginia meadow-beauty.

Bridgewater (pop. 6,600), located on the Le Havre River, was another of the Acadian fishing settlements that dotted the outer coast of Nova Scotia before the deportation in 1755. The later British town of Bridgewater was founded in 1812 as a service centre for the comparatively expansive mixed-farming area that stretches across much of western Lunenburg County. The river site attracted a number of small milling and manufacturing operations during the 19th century and one of these, the Dean Wile Carding Mill, is a part of the provincial museum system and is open to visitors. Today, an important export from the area is Christmas trees, most of which are sent to the U.S. market. The South Shore Exhibition is the site of the annual International Ox and Horse Pull Championship.

Lunenburg (pop. 3,000) is one of the "must see" towns of the South Shore. Lunenburg was settled in 1753 as part of the larger British strategy to secure Nova Scotia. The creation of Halifax in 1749 emphasized the need to settle nearby areas from which a reliable food supply could be derived. The apparent agricultural opportunity presented by the lands around Lunenburg offered such a

prospect. The initial settlers were "foreign Protestant," mainly German-speaking people from southwestern Germany and the Montbéliard region of France and Switzerland. Many of these people had been in service as mercenaries to the British overseas military and as such were ripe for re-settlement. Settlers were provided with a "town-lot," a nearby "garden lot" and a farm lot beyond the town in the hope that an agrarian colony would take root. The enterprise succeeded, but by the middle of the next century, large numbers of men had turned to the sea for their living.

The Lunenburg fishery has from an early date been distinctive in that it was an "off shore" enterprise that took men and ships away from port for months at a time. Initially, Luneburgers fished off the coast of Labrador, and when new trawling techniques were introduced, they turned to the Grand Banks off Newfoundland and the Western Bank, off Nova Scotia. There, they took cod which, when dried using the "Lunenburg cure" method, found a ready market in the West Indies, particularly Puerto Rico. This fishery gave rise to a remarkable shipbuilding industry in the town, the product of which was the fast fishing schooner of which the Bluenose is the most famous example. These ships with their many smaller "dories" were the mainstay of the "Banks" fishery. The ability to work in wood appears also to have produced a remarkably rich domestic architecture which has survived without the severe alterations that so altered many other towns of comparable age. Indeed, despite the accretions of a very recent tourist industry, the townscape of the town's core, especially the waterfront with its merchant premises and chandleries, is surprisingly authentic and still serves a working fishery. Today, of course, the technology of fishing has changed radically to large "refrigerator trawlers" which return to port every two or three weeks.

Lunenburg, N.S.

Visitors to Lunenburg should plan to spend some time walking the town. Try to locate the old high school at the western end of town, at the top of the hill. Nearby is the old burial ground in which can be found some excellent examples of gravestones carrying Germanic script. The excellent Fisheries Museum of the Atlantic is worth a visit not only because it graphically portrays the changing technology of the fishery, but also because it reveals something of the Prohibition era "rum running" trade of Lunenburg. A short drive beyond the town is the hamlet of Blue Rocks, which is a still little-altered "outport," conceived and built before the automobile. A visit to Lunenburg restaurants is also likely to reveal the town's attachment to both land and sea. Seafood chowders, and German sausages and sauerkraut are the local hardy fare.

Mahone Bay is but a few kilometers up the coast. Set at the head of a broad bay in which are scattered some 350 or more islands, the town, along with nearby Chester, has become a summer visitor and yachting paradise. Both towns are within reasonable daily commuting distance of Halifax during the summer and it is apparent that many of the more prosperous professional classes have established summer homes in the vicinity. There is also a longstanding summering population who annually come from further away, eg. Montreal, Boston. In many ways, these towns are the Nova Scotian parallels to Bar Harbour, Kennebunkport, and Newport, though far less extravagant in scale or detail.

In the vicinity of Chester is the celebrated Oak Island site. Rich in history and mystery as the site of an excavation now more than 30 meters deep, Oak Island is presumed to be the burial site of pirate treasure. Undiscovered until the late 1700s, the mysterious human-built structure has for generations attracted treasure seekers, many of who have expended their own fortunes seeking to unearth a secret that has remained elusive.

Finally, for those prepared to venture off the coastal route, the settlement at New Ross offers an opportunity to see something of the "hard scrabble" farming of upland Nova Scotia. New Ross is located on Route 14 northwest of Chester. This area was settled in 1816 by Captain William Ross and 172 former soldiers of the Nova Scotia Fencibles. Today, Ross Farm is a living historic farm museum where visitors can experience rural life on a 19th-century farm that supported five generations.

No trip along this coast would be complete without visiting the "classic" fishing outports of Peggy's Cove. Remarkable for its barren site and raging sea beyond the cove, this village, its art and craft boutiques notwithstanding, is now a protected community which annually receives thousands of tourists. Even more unspoiled, and in many ways equally picturesque, are the nearby villages of East and West Dover, Prospect, Terence Bay, and Sambro. All provide small harbours that protect fishermen against the open Atlantic. Here, one can take a measure of the determined existence that has sustained the hardy Irish settlers who scattered themselves along these shores.

Cape Breton Island

One of the most distinctive and intriguing parts of the Maritimes is Cape Breton Island. Apart from its remarkable physical beauty which justifies making the island and its celebrated "Cabot Trail" a destination for a side trip, the strength of its enduring Micmac, Acadian, and particularly its Highland Scots culture invite exploration. Few parts of Canada have managed to preserve an earlier folk cultural heritage in the way that Cape Breton has. Here, one can still hear the Gaelic language spoke and sung. Indeed, the island is home to some of the finest traditional singers, fiddlers, and dancers. Ironically, many of these people have been enlisted to re-introduce to Scotland the ways and music that had disappeared from the homeland. But there are other dimensions to the island way of life that bear notice, not the least of which is the remarkable reconstruction of Fortress Louisbourg by the national parks service. Today, with the help of costumed guides who perform the role of actual people from the past, the visitor can experience something of the French colonial town of the 1740s. In vivid contrast, one can also see the final remnants of the great episode of coal mining and iron and steel production that produced a grimy industrial landscape of blast furnace, mill, mine-head, and rows of workers' housing in the Sydney-Glace Bay segment of the island. Stephen Hornsby, a geographer who has made Cape Breton his specialty, has prepared an introductory essay that particularly stresses the Five Themes approach.

Cape Breton Island and the Five Themes of Geography

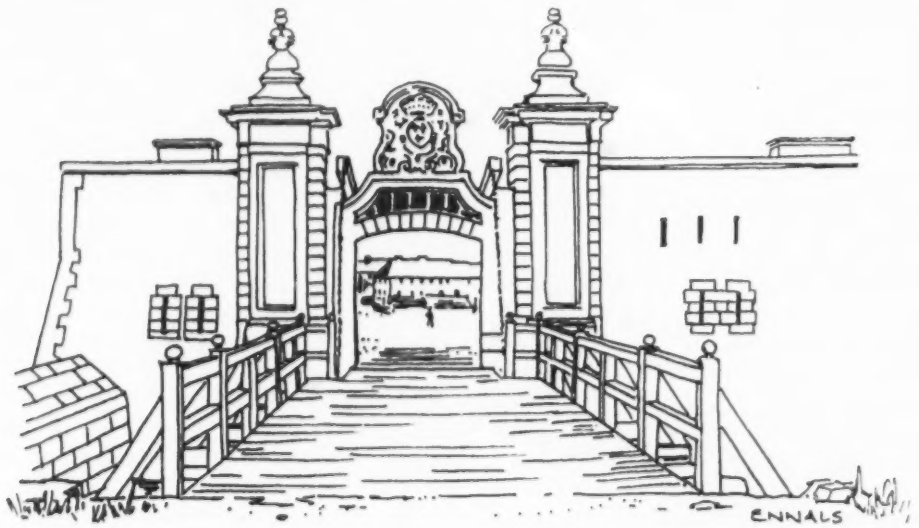
Stephen Hornsby

Situated at the eastern end of Nova Scotia at the mouth of the Gulf of St. Lawrence, Cape Breton's mid-latitude location — approximately 60° W, 46° N — places it on the same parallel as La Rochelle, France, and made it an early landfall for Europeans venturing west across the Atlantic. Although some Cape Bretoners claim that the European discovery of the island was made by John Cabot in 1497 (a feat commemorated by the Cabot Trail that winds its way round the Cape Breton Highlands), it seems more likely that Basque and French fishermen (perhaps from La Rochelle) first explored the island's coasts in the early 1500s. Given its accessible, foreland location, Cape Breton was quickly incorporated into a North Atlantic world of fishing and commerce, centered first on France and then, later, Britain. Only when this trans-Atlantic economy waned in the late 19th century and was replaced by a transcontinental economy centered on Quebec and Ontario did Cape Breton's relative location shift. From being at the "front-door" of North America, it became the "back-door" of Canada. For much of the 20th century, Cape Breton has been part of Canada's Maritime hinterland.

A part of the Appalachian mountain region, Cape Breton's physical characteristics have been shaped largely by geology and glaciation. Much of the northern upland is composed of resistant granite, gneiss, and schist rocks, while the southern lowlands are composed of softer conglomerates, shales, limestones, and sandstone. Glaciation rounded the northern hills and scooped out numerous lakes in the lowlands, as well as depositing clays and sands over much of the island. Apart from alluvial deposits along the principal river valleys (intervales), island soils are generally poor, mostly thin, rocky podzols. Although the sea moderates the island's continental climate, winters are long and summers short and cool. In the interior, the growing season is only 62 days. A mixed hardwood/softwood forest covers much of the island.

The island's cultural characteristics have been shaped by a succession of ethnic groups. Native Micmacs retain an important presence on the island, particularly at Whycocomagh and Eskasoni. From their roadside stalls, native people sell traditional crafts, including handwoven baskets. Although the French had fished inshore waters since the early 1500s, it was not until 1713 that they made their first permanent settlement on the island. Their great fortified town at Louisbourg served as an outer bulwark of New France, as a centre of cod fishery, and as an entrepôt of trade in the North Atlantic. Destroyed by the British in 1760, its ruins were partially rebuilt by Parks Canada in the 1960s. In scale and authenticity, the reconstructed town, consisting of bastion, barrack block, merchants' houses, taverns, and warehouses, is Canada's equivalent of Colonial Williamsburg in Virginia. Apart from Louisbourg, the most evident reminders of French settlement are the Acadian enclaves at Isle Madame (Arichat) and Chéticamp. These settlements are instantly recognizable. They usually comprise linear street villages of closely-spaced houses strung along the road with narrow long-lots at the back. Houses are painted pastel shades and the Acadian tricolour, rather than the Canadian maple-leaf, flies from garden flagposts. Large Catholic churches with associated religious buildings dominate the settlements. Loyalist refugees who came to Cape Breton after the American War of Independence have left their mark principally in Sydney. The core of the town — its streets, garrison church, and New England-style Cossit house — date from the Loyalist period of the late 18th century. Across much of the rest of the island, the cultural landscape is dominated by Scots, who arrived in Cape Breton during the first half of the 19th century. At that time, Cape Breton was one of the principal North American destinations for crofters (small tenant farmers) cleared from the estates of the Western Highlands and Islands of Scotland. Although the dispersed pattern of settlement and the architectural styles of farmhouses and churches owe little to Scotland, names on rural mailboxes, denominations of churches (Presbyterian and Catholic), and placenames — Skye Glen, Inverness, Loch Lomond, Glencoe— testify to extensive Scottish settlement. Some of the most poignant memorials to this great immigration are to be found in country cemeteries, such as that in Middle River, where gravestones record the origins and ultimate resting places of these settlers. In the early 20th century, the massive southern and eastern European migration to North America left Italian, Polish and Ukrainian communities in Whitney Pier, Sydney's steel suburb.

The economic characteristics of Cape Breton have always reflected close human-environment interaction. Exploited by Europeans since the early 1500s, the fishery remains important, particularly at Petit-de-Grat, Chéticamp, Little Bras d'Dor, Glace Bay, Main-à-Dieu, and Louisbourg. Small inshore craft take lobster, cod, herring, and mackerel, while offshore vessels trawl for cod and haddock. The amount of farmland on the island has shrunk considerably since the late 19th century, but working farms can be found along the Margaree, Middle, Mabou and Inhabitants river valleys. These are relatively small, mixed farms, combining the raising of beef and dairy cattle with the growing of hay, oats, barley, and potatoes. Pulp wood is cut from many farm



Gate at Fortress Louisbourg

Company-built miner's housing, New Aberdeen, N.S.

woodlots, as well as from small paper company holdings in Inverness County and from provincially-owned land. The coal industry of eastern Cape Breton is a shadow of its former self. With one of the largest coal fields on the continent (much of it under the sea), Cape Breton's coal industry grew rapidly in the late 19th and 20th centuries. A steel mill was built at Sydney and the mining towns of Sydney Mines and Glace Bay expanded. But increasing use of oil and hydro power lessened demand for coal, while at the same time the steel industry was run down. Today, the coal industry, massively subsidized by the federal government, limps along with about five working pits. As the island's primary industries have waned, so tourism has been encouraged by provincial and federal governments. The creation of the Cape Breton Highlands National Park and the Fortress of Louisbourg National Historic Park, as well as celebrations of the island's Scottish culture and mining heritage have all attempted to develop tourism and help ameliorate high local unemployment.

In large part, Cape Breton's cultural and economic geography has been created by the movement of people and goods. The great Scottish immigrations of the early 19th century were followed by out-migration, first to the "Boston States" in the late 19th and early 20th centuries and then to Ontario, Alberta, and British Columbia in more recent years. As Alistair MacLeod's short story, "The Closing Down of Summer," so vividly reveals, some of this migration is seasonal: young Cape Bretoners work winter months "away" and then spend summers on the island. Similarly, there is the seasonal ebb and flow of tourists. In terms of economy, the maritime trans-Atlantic trade that supported Louisbourg and the 19th-century fishery was eventually replaced by the building of a branch of the Intercolonial Railway that tied Cape Breton coal and steel to central Canadian markets. In the early 20th century, city boosters saw Sydney replacing Montreal as Canada's link with Europe. Yet, such was not to be. With the decline of Cape Breton's heavy industry, the rail link has withered; in recent years, the passenger service has been withdrawn. Today, long-distance truckers take the island's fish and produce to market, as well as goods from Ontario to Newfoundland via the North Sydney ferry.

Many Cape Bretoners see the island as a distinct region. They would argue that Cape Breton has a special way of life, shaped by a vibrant Scottish folk culture (particularly music), a radical labour tradition (born out of the coal industry), and an economy based overwhelmingly on primary production. Yet, such a characterization leaves out the French-speaking Acadians and the Micmac people. There is also the tourists' view of Cape Breton as a pleasure region, a place of spectacular scenery, quaint fishing villages, and historic sites. Viewed more generally, Cape Breton can be seen as typical of many resource hinterlands that have fallen on hard times (eg. Appalachia). Local cultures, bypassed by fashions of the late 20th century, are celebrated for their "authenticity," and natural scenery, unblemished by urban sprawl and industry, is marketed for tourists. Yet, it is unlikely that nostalgia for a largely mythical pre-industrial past will help solve the considerable social and economic problems that face Cape Breton today.

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Part III: Field Trip Itineraries

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Trip A1: Annapolis Valley

Leaders:
John Trites, Leo Glavine, Barry Corbin, and Jim Taylor

(See Map 6 on page 25.)

OVERVIEW

The Annapolis Valley was one of the first areas settled in North America, and both the French and English have had significant impacts on the cultural landscape. The valley consists of numerous small towns and villages which act as local service centres for the fishing and farming populations. This trip will explore a large cross section of the human and physical geography of the valley.

ITINERARY

Sunday, August 1 — Approximately an hour from Halifax we will stop at Grand Pré. This area is of significance for two reasons. This was one of the areas settled by the early French inhabitants approximately 300 years ago. These Acadian settlers built miles of dykes to protect thousands of hectares of low-lying marsh from the saltwater tides of the Minas Basin. These dykes have changed very little during the last 300 years and are still in use today. What has changed though, is the people farming this area. In 1755, the British government forced the Acadians from their homes and land when they refused to swear an allegiance to the British Crown. A National Historic Park is now located in Grand Pré and there are many fine examples of dykes nearby.

A few miles to the west is the town of Wolfville, home of Acadia University, where we will stop for lunch. After lunch we will travel across the Cornwallis River and towards the North "Mountain." The Cornwallis River is a good spot to observe the fluctuations of the famous Bay of Fundy tides (highest in the world). In the Canning area there will be stops at two or three different types of farming operations. From here we will travel over the mountain to the community of Hall's Harbour, located on the Bay of Fundy. This small fishing village

is another excellent location to observe the impact of the tides. It is also home to a lobster pound that we will visit. The first evening will be spent in the Wolfville area.

Monday, August 2 — On Monday we will travel to the western end of the valley. Along the way we will stop at the Nova Scotia College of Geographic Sciences in Lawrencetown. This facility has one of the best reputations in Canada for studies in remote sensing, G.I.S. cartography, surveying, planning, and computer-related studies.

Further west is Annapolis Royal, the site of one of the earliest French communities in North America. It was captured by New England and British troops in 1710 and turned into Fort Anne and Annapolis Royal. Nearby is Port-Royal where the French built their first "habitation" or fort in 1605. Both of these locations are now National Historic Parks.

In addition to stopping at Fort Anne, we will also visit the Annapolis River Tidal Power Dam, one of very few tidal power operations in the world. This is a working pilot project built to test the feasibility of constructing much larger dams nearer the head of the Bay of Fundy.

From Annapolis Royal we will progress towards Digby. In the Digby area are several fishing communities and some good example of weir fishing. The terminal for the car ferry that runs between Saint John, N.B., and Digby, N.S., is also found here.

Shortly after Digby we will have to travel on two small car ferries to get to Brier Island, our final destination for the day. Brier Island has been home to small fishing villages for generations and, in recent years, has started to attract thousands of tourists annually to engage in whale watching and to hike its nature trails. Unfortunately, there will not be time to participate in a whale watching excursion, but it is not uncommon to sight whales from the island.

Tuesday, August 3 — On the way back towards Halifax on the final day, we will spend most of the time in the central-eastern part of the Valley. The Kings County area is of the most prosperous areas in Nova Scotia. The area between Greenwood and Kentville has much of the best soil in Nova Scotia and a climate suitable for growing a variety of fruits and vegetables. This is the most important area of apple orchards and also produces peaches, plums, pears, and cherries. In recent years commercial vineyards have also opened to support the local wineries.

This area has experienced significant economic growth over the years due to several large government facilities such as military bases, detention centres, hospitals, and an agricultural research station. The day will be spent visiting fruit operations and seeing some of these government facilities.

The trip will end back in Halifax by supper time.

Trip A2:
Downtown Moncton, New Brunswick

Leader:
Sam Arseneault

OVERVIEW

This walking tour of Downtown Moncton will be of interest to those people driving through New Brunswick on their way to Halifax. Unlike many Maritime cities, Moncton was not initiated and planned during early colonial times. Rather it grew from a small village into a significant urban place because of its nodal location within the region. It is often referred to as the "Hub of the Maritimes" because of it central location and for many years it was one of the most important trailway centres in the region. From this location many national companies have distributed goods to the region. In recent years, Moncton has suffered several devastating economic blows as the railway repair shops were closed and other traditional employers abandoned the city. Much to the surprise of many, new enterprises have chosen to located in the city thereby transforming its once blue collar economy and workforce into one focused on new services, especially those utilizing New Brunswick's advanced telecommunications infrastructure and its bilingual workforce.

ITINERARY

Participants will walk downtown and visit a number of historic sites and view the remarkable Peticodiac River, which has a pronounced tidal bore driven by the high tides of the Bay of Fundy.

Trip A3:
Fredericton and Central New Brunswick

Leader:
Gary Whiteford

OVERVIEW
Over a two-day period, participants will have an opportunity to explore the historical landscape of the middle Saint John River valley (day 1), and the urban landscape of a colonial village and the provinces principal city, both located on the Bay of Fundy coast (day 2).

ITINERARY

1. **King's Landing** is a re-creation of a typical New Brunswick village of the 1840s. Participants will spend a half day on site.

2. **Downtown Fredericton** is explored by means of a self-guided walking tour. Fredericton is the provincial capital and was planned by Loyalists who sought to establish it as a centre of military, educational and cultural life for the colony.

3. **St. Andrew's-By-The-Sea** was established by Loyalists fleeing the American Revolution. After the arrival of the railway and the construction of the great Algonquin Hotel, it became a fashionable tourist destination for well-to-do English-speaking Montrealers. Its 18th-century residential townscape has been well preserved. The Huntsman Marine Laboratories and the Atlantic Salmon Research Station are located here.

4. The city of **Saint John**, with a population of 120,000, is the largest and most industrialized city in New Brunswick. Shipbuilding, pulp and paper, and oil refining, all of which are controlled by the family-owned Irving company, are concentrated around the harbour. This is also the home of the Moosehead Brewery.

Trip A4:
The Old Port of Portland, Maine

Leader:
Bob French

OVERVIEW
This field trip is intended to meet the needs of auto travellers who plan to save over 800 miles of driving by taking advantage of the Portland, Maine to Yarmouth, Nova Scotia passenger and auto ferry. Since the ferry does not leave until 9:00 p.m. and offers overnight accommodations, travellers arriving on the afternoon of August 3 might wish to savour some of Portland's rich historical geography as well as enjoy its current amenities.

ITINERARY
The field trip will start on the filled land that once was the site of the 17th-century port and proceed west along the waterfront toward the currently active port. Buildings and other relic features en route will reveal the subsequent geographical and functional changes that have occurred. Special attention will be given to the nature and organization of activities as seen in present patterns. It should prove instructive to compare this evidence with the mercantile urban model developed by Martyn Bowden [Clark University]. By traversing along streets parallel to the waterfront, the transition from maritime to commercial, residential and civic activities will be evident. The shrewd observer will note the uniform architecture that is characteristic of the area. It is a product of rapid rebuilding following the fire of 1866 that destroyed much of the city. Appropriate maps and graphics will be provided.

Time and energy will help determine the end of the formal tour at which point we will be located in the midst of the dining and entertainment area of the Old Port. A variety of ethnic and seafood restaurants should tempt the palate and four dozen pubs offer to help fill the time that remains. Some may choose to explore the streets or sample the shops in the Old Port. It is not a long walk (or cab ride) to the ferry from there (just over 1/2 mile).

Trip A5:
Land Registration and Information Services (LRIS), Amherst, Nova Scotia

Contact:
Curt Speight

OVERVIEW
LRIS provides a number of geographic services to individuals, private businesses, and government departments throughout the Atlantic Provinces. These include air photo and remote sensing interpretation, cartographic services and GIS applications, urban, regional and recreational planning. This is also a distribution centre for Canadian Topographic Maps produced by the federal Department of Energy, Mines and Resources.

Trip A6:
Crystal Crescent Beach and West Pennant River

Leader:
Michael McCurdy

OVERVIEW
This field trip is used with grade ten physical geography students at Dartmouth High School. Conference participants will be given an opportunity to see a portion of Nova Scotia's spectacular coastline.

ITINERARY

1. **West Pennant River**
   Objectives:
   a) study of river erosion of a granite valley
   b) recognition of erosional river features of an upper course stream — rapids, waterfalls and plunge pool.
   c) introduction to field sketching

2. **Crystal Crescent Beach — Headland 1**
   Objectives:
   a) study of formation of coastal headlands
   b) observe evidence of glaciation
   c) observe processes of mechanical and chemical weathering
   d) observe soil formation and a soil profile
   e) study of the stunted coastal vegetation

3. **Headland 2**
   Objective:
   a) observation of erosional and depositionala features of glaciation

4. **Rocky Beach**
   Objectives:
   a) study of beach formation and its composition
   b) study of features of a Ria Coastline

5. **Headland 3**
   Objective:
   a) observation of wave refraction and headland erosion

6. **Main Beach**
   Objectives:
   a) study of beach formation
   b) study of sand dune formation
   c) how to construct a shoreline profile

7. **Final Vantage Point**
   Objective:
   a) observe the coastline and the evidence of man in the area both historically and the present.

Trip A7:
"Decision Time in the Forest" or "Mooseland: Bullwinkle Meets the Chainsaw"

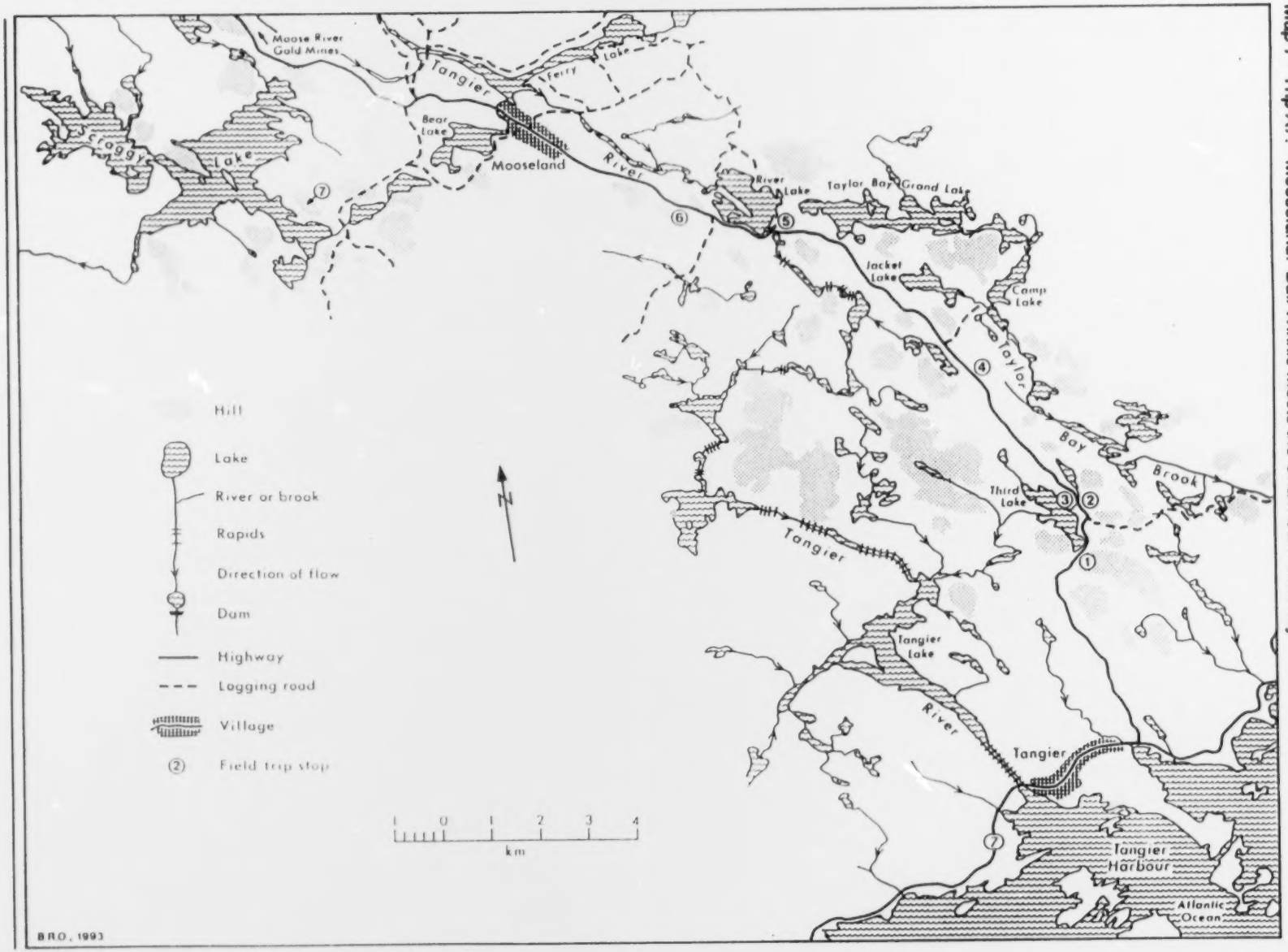
Leader:
Stephen J. Moroney

OVERVIEW
Off the beaten path, one hour east of Halifax, is the Mooseland Road which parallels the Tangier River and its valley. A one-time playground of wealthy Canadian and American sportsmen, the valley has seen its moose and fish populations devastated since the Second World War. These declining numbers are the direct result of the deadly one-two combination — acidic precipitation and clearcut logging. Adding spice to this brew is the practice of unrestricted hunting and fishing.

ITINERARY

1. **"And the Old Man Came Home from the Forest"** is a short walk into a section of Nova Scotia's "old growth forest" which has been selectively cut three times since the turn-of-the-century. This forest is between 500 and 1,000 years old.

Map 7 - Trip A7: "Mooseland: Bull Winkle Meets the Chain Saw" Itinerary



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2. You will observe **"The Roadside Cut"**, a 100-acre clearcut with all the common forms of damage associated with clearcutting.

3. **"The Trout Box"** stop shows the launching pad of 40,000 trout released every year by the Nova Scotia Department of Fisheries and the local wildlife organization. Their route to the ocean covers 5 kilometres through streams and lakes with an average acidity of 4.8.

4. The **"Orange Rock Clearcut"** is a 4-year-old, 500-acre site which had been aerially and ground-sprayed with Vision, a.k.a. "round up." Preparation is underway to replace the "old growth forest" of black and white spruce, Jack pine, silver maple and yellow birch with genetically engineered Jack pines. Huge mounds of dead limbs lie on both sides of the logging road along with smaller "forest debris" strewn all across the landscape. To the north is Powderhorn Hill, a 3-kilometre-long clearcut which had been burned and had the moose population eliminated. Evident throughout the site are the drastic consequences upon river life which have resulted from the lethal combination of acid precipitation runoff over clearcut forests into a rive valley cut through granite and slate.

5. **"Lunch with Garfield"** is held at the Tangier River dam and fish ladder. The dam-and-ladder was a joint wildlife federation and government project to restore the salmon run to the Tangier.

6. The infamous **"Boy Scout Strip"** is a 400-acre cut where, amongst all the classic clearcut debris, you will trudge a short distance into a field of wild raspberries and boy scout planted pine seedlings. Typical of Canadian success rates, only half of the seedlings have survived to date over a 4-year span.

7. From the hilltop overlooking **Scraggy Lake** you will observe 13 former hardwood hilltops which have been stripped and targeted for pine replanting. On this particular site, grass has taken root as a side effect of "Vision" spraying, with the result that during a recent dry summer there were a number of extensive brush fires. The forest management practices observed on this trip are typical of practices carried on in 95 percent of Canada's productive forests. It will become obvious that Canada is not practising forest resource management which can be described as "sustainable development."

***Editor's Postscript**: You will meet Floyd Day on this trip. Like most of his friends, Floyd has spent the majority of his 65 years in harmony with the woods. But now the forests are threatened and no one seems to hear, as the clearcuts grow in number. By coming to Mooseland you will give Floyd, and me, an opportunity to reach a larger and more influential audience.*

Trip B1:
Metropolitan Halifax: Development and Planning Issues

Leader:
Hugh Millward

OVERVIEW

Halifax was founded in 1749 on an excellent defensive site, adjacent to deep water and nestled below Citadel Hill. Its peninsula site, however, has greatly hampered subsequent development, and has led to municipal fragmentation, traffic congestion, and a misplaced C.B.D. This trip begins in the historic centre, with emphasis on downtown redevelopment, the changing fortunes of retail districts, and the strong social division between North and South Ends. The impact of the 1917 Explosion is investigated at Fort Needham and the Hydrostone District. In the latter half of the trip we view development issues in suburban areas of Dartmouth and Halifax, with particular emphasis on transport planning and industrial parks.

ITINERARY

1. **Citadel Hill** — National Historic Park. Restored mid-Victorian fortress on drumlin. Note constrained site of C.B.D. (original town site) between hill and harbour. High-rise development controlled by view-plane zoning.

2. **Scotia Square** and **Metro Centre** — Major "pump-priming" redevelopment projects of the late 1960s and late 1970s respectively. Centre of pedestrian walkway system.

3. **Barrington Street** — The traditional downtown shopping street. Most retailing has now moved to Scotia Square or Spring Garden Road.

4. **Spring Garden Road** — Now the busiest and most fashionable pedestrian shopping street. Its importance underlined by Spring Garden Place and the Park Lane complex.

5. **Public Gardens** — Of mid-Victorian vintage, occupying portion of original Commons. Controversy over surrounding high-rise luxury apartments (e.g., Summer Gardens).

6. **Hospital District** — Along University Avenue, this comprises general, children's, and maternity hospitals, the dental and medical buildings of Dalhousie University, and specialized services.

7. **Young Avenue** — A planned prestige development built around 1890. City's first restrictive zoning by-law in 1910. Note "Oland Castle" converted to condominiums (on right) and view of marshalling yards and Halterm container pier (on left).

8. **Golden Gates** — At 75-hectare Point Pleasant Park. Deeded to city by Queen Victoria in 1866.

9. **Bilton Estates** and the **Northwest Arm** — Very high land prices along Arm. Note the Memorial Tower at the Dingle, the Royal Nova Scotia Yacht Squadron, and the site of the proposed Northwest Arm Bridge.

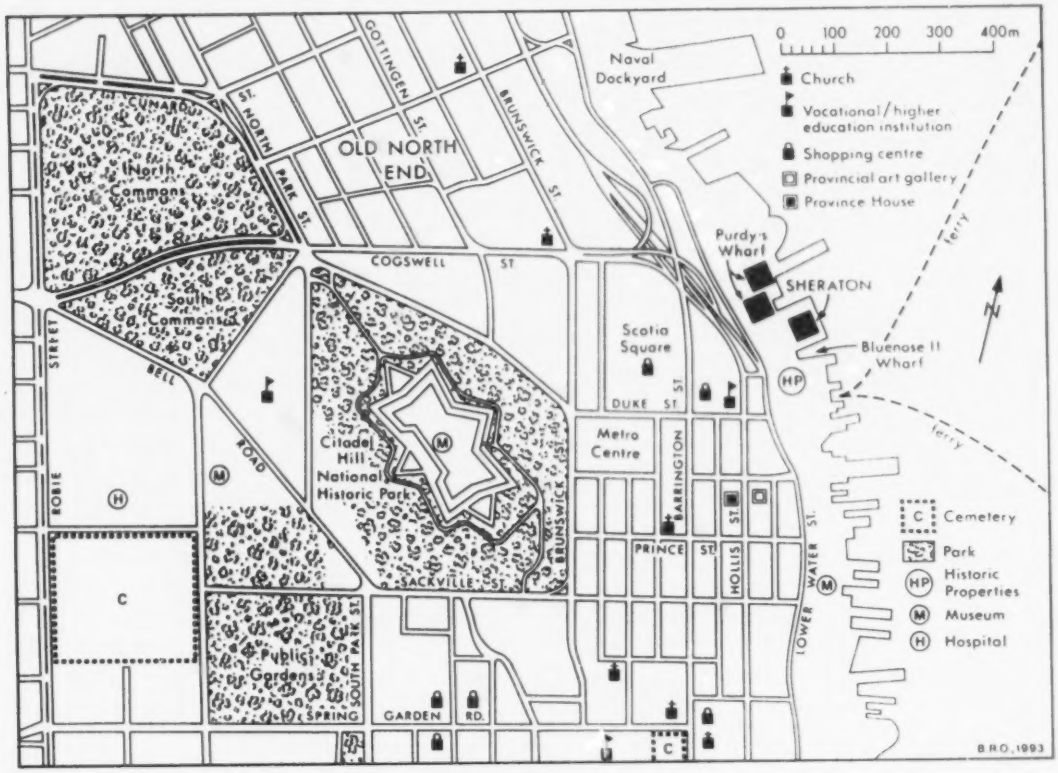
10. **Old South End** — A designated NIP area [Neighbourhood Improvement Programme], and has seen vigorous planning deter encroachment by apartment buildings (e.g., by height precincts). Considerable gentrification of Victorian homes.

11. **Lower Water Street** — The zone of discard. Land assembly and infrastructure renewal by a Federal crown corporation (the Halifax-Dartmouth Waterfront Development Corporation) in mid-1970s. Mostly awaiting redevelopment (parking lots).

12. **Historic Properties, Sheraton** and **Purdy's Wharf** — Historic Properties and law courts began waterfront revitalization in early '70s. Sheraton and Purdy's Wharf were built in '80s on lands serviced by Waterfront Development Corporation.

13. **Brunswick Street** — Fashionable in late 1800s, but in declined since. Note the round church (St. George's) and the little Dutch Church (1756, on right).

Map 8 - Trip B1: Metropolitan Halifax



14. **Uniacke Square** — Public housing project, of late 1960s vintage. Received many blacks displaced from Africville. Has recently undergone federally-funded "regeneration."

15. **Gottingen Street** — Increasingly seedy commercial street, with many vacant stores. Renewal projects include a "mainstreet" renovation grant, and a new Federal Government office building. Surrounding area has benefitted from Federal renovation grants.

16. **Hydrostone District** — Early town-planning scheme constructed 1918-21. Emergency housing for those displaced by the 1917 Explosion.

17. **Fort Needham** — Former fortress on drumlin, overlooking site of 1917 Halifax Explosion. Recently-completed Memorial Carillon.

18. **H.M.C.S. Stadacona** — Headquarters of Maritime Command. Department of National Defense is single largest employer in metro area.

19. **Macdonald Bridge** — First road bridge, opened in 1955. Led to rapid development of Dartmouth, which was incorporated as a city in 1961. Note naval dockyards below, to right.

20. **Dartmouth Commons** — Encroachment of public and private uses on former Commons. Remnant areas remain as "urban wilderness" area and public gardens.

21. **Downtown Dartmouth** — Note new marina, ferry terminal, and waterfront park (courtesy of Waterfront Development Corporation). Also, Alderney Gate (new civic complex), improvements on Portland Street ("mainstreet" program), new City Hall, and luxury condos (Admiralty Place).

22. **Shubenacadie Canal** — Canal connected Atlantic coast to Bay of Fundy, via Dartmouth lakes and Shubenacadie river. Constructed between 1826 and 1861, and operated to 1870. Boats were transported on rail from Dartmouth Cove to Sullivan's Pond.

23. **Lake Banook Canoe Club** — Lake Banook has been a focus for regattas since the mid-1800s, and acquired canoe clubs and boat-houses after 1902. It has hosted the World Canoe Championships.

24. **Micmac Mall** (on left) — Atlantic Canada's largest shopping centre (3-level, 50,000 sq.m.). Built 1973, with major addition 1981.

25. **Burnside Industrial Park** — Atlantic Canada's largest, owned by City of Dartmouth. Started in 1969. Now has 1,200 companies, and over 15,000 employees. New road connections to Sackville and the airport highway (118) are under construction.

26. **Shannon Park** — Military housing area. It contains the largest French-speaking population in metro Halifax.

27. **Bedford Institute of Oceanography** — Federally-funded research institute.

28. **MacKay Bridge** — Opened in 1969. Good view of Bedford Basin and Narrows.

29. **Negro Point** — Site of black settlement of Africville, adjacent to city dump, fever hospital, and prison. Demolished in late '60s. Site is now Seaview Park.

30. **Fairview container pier** — Built on landfill site in late 1970s, and recently expanded to two-berths.

31. **Clayton Park** — Large residential development by subsidiary of L.E. Shaw Brick Company. Controversy regarding traffic volumes on Bayview Drive.

32. **Dunbrack Street/Northwest Arm Drive** — Major arterial constructed 1976-7, originally intended to connect to Northwest Arm Bridge.

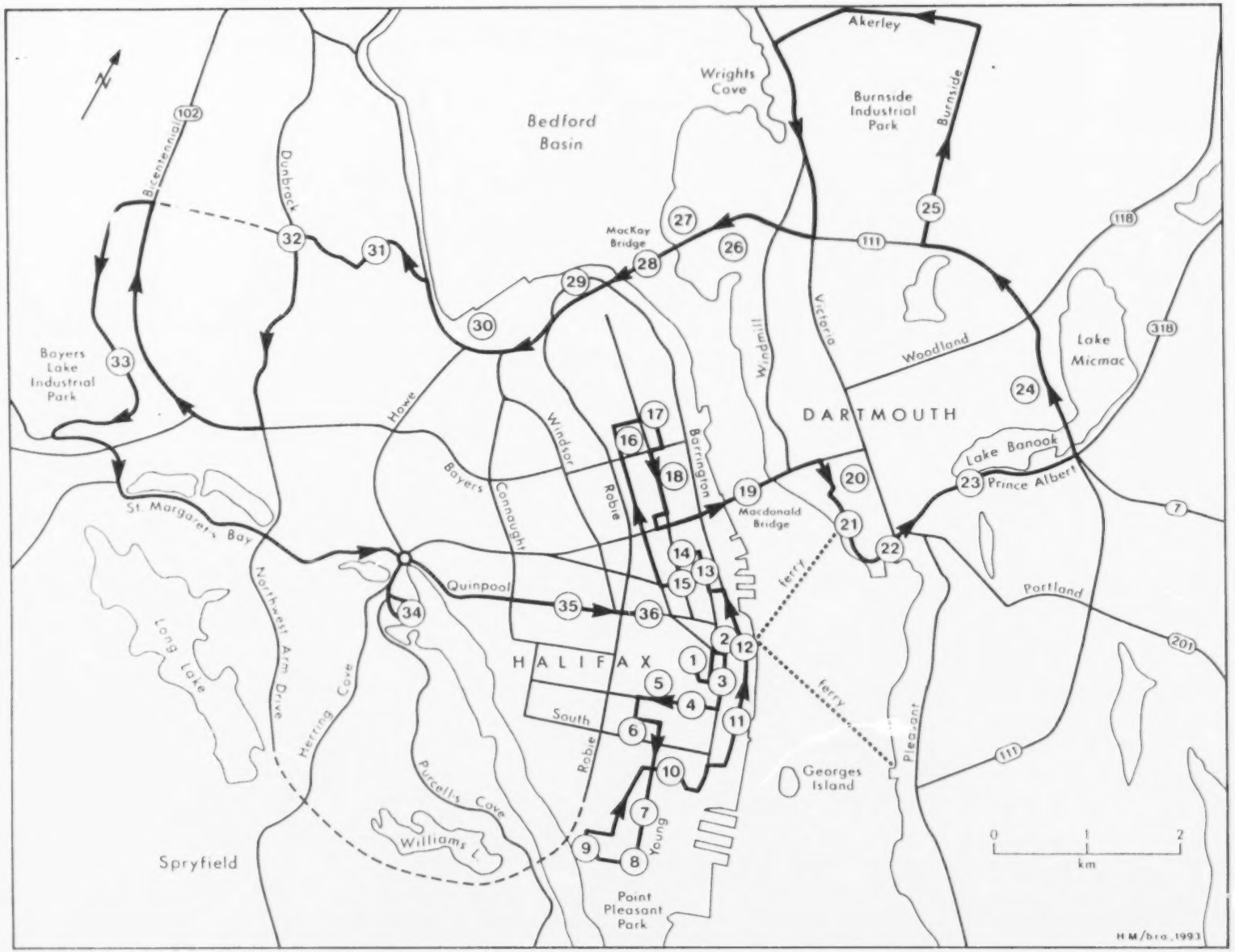
33. **Bayer's Lake** — Portion of the Halifax Industrial Park, owned by City of Halifax. Area annexed from county in 1985. This 500-hectare area accessed from highways 103 and 102. Volvo assembly plant and Price-Club discount store are major tenants.

34. **Regatta Point** — Prestige development at head of Northwest Arm, adjacent to Armdale Yacht Club. Required by city to build public walkway along shore of Arm.

35. **Quinpool Road** — Traditional shopping street on former street-car route. The city's main social divide.

36. **Willow Tree** (former hanging site) and **Commons** — Remnant of extensive marshy area originally used for military training and common grazing of cattle.

Map 9 - Trip B1: Metropolitan Halifax Itinerary



Trips B2 and B6: Bedford Institute of Oceanography

Leader:
T.B.A.

OVERVIEW
The Bedford Institute of Oceanography is one of the top marine research labs in North America. Located on the Bedford Basin opposite Halifax, it is easily reached for a tour which will involve an introduction to the work of the institute and a tour of its core storage and other facilities.

Trip B3: Halifax Port and Waterfront

Leader:
Robert McCalla

OVERVIEW
The trip involves a water tour of the Port of Halifax, with a bus tour of one of the container piers. The group will depart from the Cable Wharf on board a converted Cape Island fishing vessel which will take us around the harbour. We will proceed across the harbour to Eastern Passage, make our way along the Dartmouth waterfront to Bedford Basin, to Fairview Cove Container Terminal. Points of interest are:

Autoport
Imperial Oil Refinery
Woodside Ocean Industries Park
Canadian Coast Guard Base
Dartmouth Marine Slips
Bedford Institute of Oceanography
National Gypsum loading facility
Fairview Cove Container Terminal
Richmond Terminal
Halifax Shipyard
The Naval Dockyard
Halifax Waterfront redevelopment
Ocean Terminals
Halterm

Near Halterm, we will disembark from the vessel and transfer to a bus which will take the group into and around Halterm. We will be accompanied by a representative of the Halifax Port Corporation. The bus will return delegates to the meeting site.

Trips B4 and B7: Helicopter Tour over Halifax

This trip provides a 15-minute helicopter trip over the city of Halifax and the port. This is a remarkable vantage point for photographing the city and harbour, weather permitting.

Trip B5: Walking Tour of Halifax

Leader:
Brian Robinson

OVERVIEW
This walking trip will provide participants with a chance to explore the historical, cultural and economic aspects of Halifax. The route will move from the Commons, through the newly gentrified North End, down to the restored waterfront area and downtown. It will then move to the Citadel, to the shops of fashionable Spring Garden Road, ending at the Public Garden.

Trip B6: See B2 - Bedford Institute

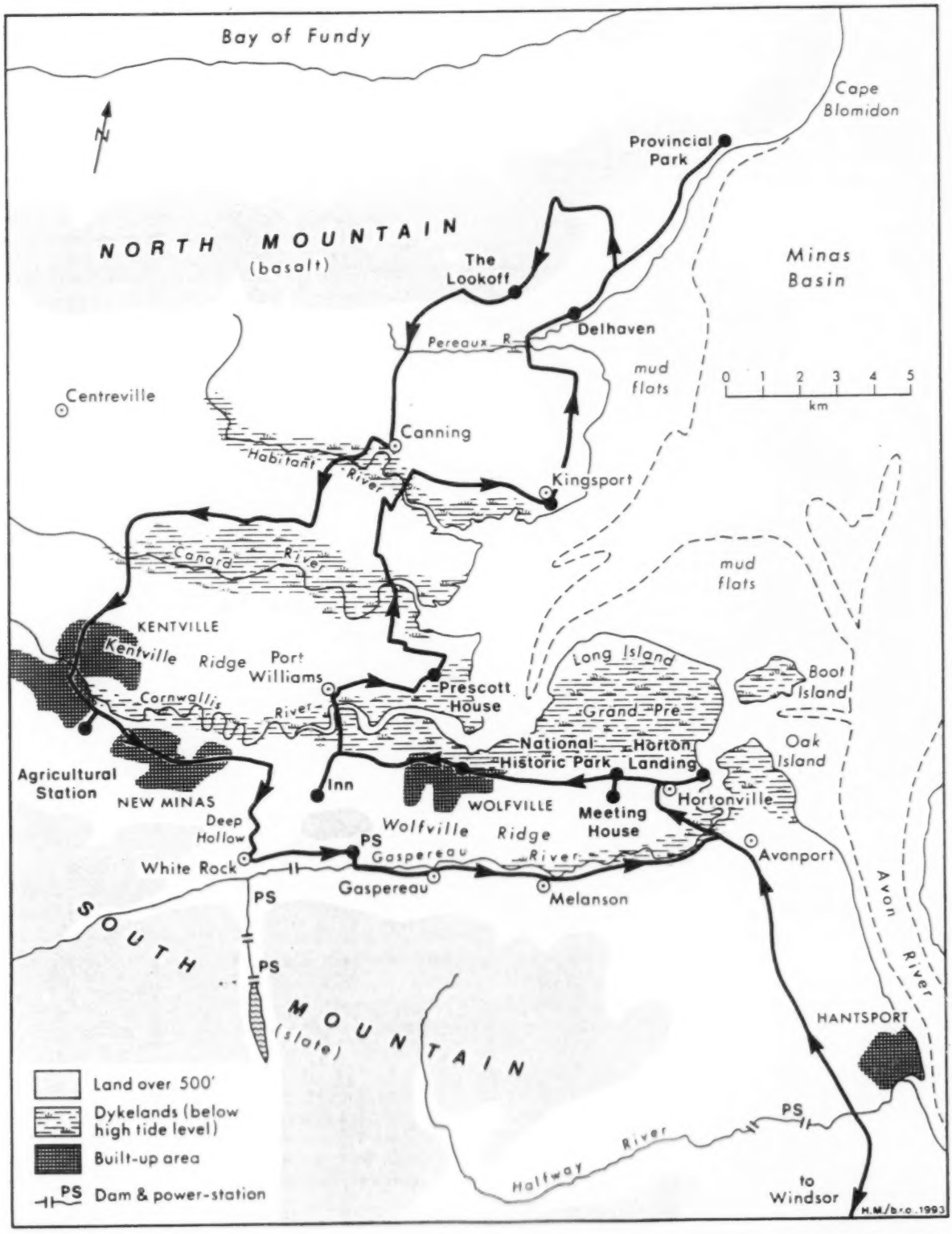
Trip B7: See B4 - Helicopter Tour

Trip B8: Kings County: Land of Evangeline

Leader:
Hugh Millward

OVERVIEW
This trip traverses the glacially-scoured waist of Nova Scotia between Halifax and the Minas Basin, to enter the fertile lowlands of the Avon Valley and the Annapolis-Cornwallis Valley. These lowlands were colonized in the 1600s by Acadian French settlers, who dyked the expansive marshlands created by the world's highest tides. Following the expulsion of the Acadians (commemorated in Longfellow's poem Evangeline), New England planters took over the lands, and developed a thriving export trade in apples. Today, the fertile soils also produce vegetables, corn, potatoes, small-grains, and even tobacco.

Map 10 - Trip B8: Kings County Itinerary



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ITINERARY

Halifax to St. Croix, via 102 and 101. Across the Atlantic Upland, composed of alternating bands of Goldenville (lower) and Halifax (upper) formations, with granite intrusions near Mt. Uniacke. An inclined peneplain, glacially scoured. Deposits of glacial till in Lower Sackville area.

Dykelands near St. Croix. Weir Brook, a tributary of the St. Croix, near upper tidal limit. Originally dyked by Acadian French in late 1600s. Modern dyke operates by simple flapgate (aboiteau) in same manner as original dyke. Note cliffs in gypsum of Windsor sedimentary formation.

St. Croix to Hortonville, via 101. Through Windsor lowland, a graben of sedimentary rocks overlain by glacial till. Across Avon Causeway at Windsor — modern successor to previous Acadian and New Englander dykes, which creates and maintains level in freshwater Lake Pisiquid. Across Horton sandstone formation, bisected by valley of Halfway River.

Horton Landing and Hortonville. Site of the Acadian expulsion in 1755, and the Planter landings of 1760. Good view from this location of Grand Pré (the big meadow of the Acadians), which is a tidal marsh enclosed and protected by modern dykes.

Grand Pré. From 1680 to 1755, site of the largest Acadian village, located on firm ground adjacent to the big meadow. The memorial gardens contain a re-created church and blacksmith's shop, and an exhibit explaining the early dykes. A few hundred metres south is the well-preserved Covenanter's church built by the Planters (c.1790).

Wolfville. Originally called Mud Creek, this town of 3,500 people was founded by New England Planters in late 1700s. The small tidal harbour is now silted-up, and the town's main function is Acadia University (a Baptist foundation).

Port Williams to Kingsport. Across the Cornwallis river (original Acadian dykes raised and maintained), the Canard river (lateral Acadian dykes rendered obsolete by New England cross-dyke), and Habitant Creek (ditto). Port Williams wharf still accessible by small boats. Note Cobi Foods factory here. Prescott House (c. 1814) was the home of Charles Prescott, who developed the early apple industry. Kingsport was a busy port throughout the 19th century, with ferry across Minas Basin to Parrsboro. Community is now a small resort (cottages at Longspell Point).

Pereau Creek and Delhaven. North from Kingsport to the small valley of Pereau Creek, which is dyked near its mouth. From the north side of the estuary, good views of rapid coastal erosion of Blomidon sandstones (sheer cliffs, the paddy island stack). Delhaven is a working fishing port.

The North Mountain, Cape Blomidon, and **Lookoff.** The North Mountain is a lengthy escarpment created by flows of basalt, which protect the soft underlying triassic sandstones. Cape Blomidon, at eastern end, is legendary home of the Micmac god Glooscap, and now a provincial park.

The Lookoff to Kentville. Back across the "valley," crossing three dyked rivers (Pereau, Habitant and Canard), and "intervales" (slightly higher, rolling land). Through small towns of Canning, Canard, and Upper Dyke Village. Mixed farming (arable, orchards, and some beef cattle). Kentville: shire town [county seat] of Kings County, originally sited at lowest bridging point and highest navigation point on tidal Cornwallis River. Grew in late 19th century as railroad centre for Dominion Atlantic Railway. About 7,000 people, employed in trade, services, food processing, and at Michelin tire plant.

Kentville Agricultural Research Station. Operated by Agriculture Canada, this station has extensive field-plots and several large laboratories. Specializes in developing new apple strains. Immediately to the east is the deep ravine of Elderkin Brook, cutting down into Horton sandstones.

New Minas. Incorporated village of 3,000 people, which has taken much trade from nearby Kentville. Good example of haphazard, uncontrolled retail development. Its central position recently reinforced by new bridge over Cornwallis.

Deep Hollow. A "windgap" through the Wolfville Ridge, created by the Black River downcutting into the slates of the Halifax formation. Black River subsequently captured by Gaspereau River, cutting back from the east.

White Rock Power Station. The lowest of five hydro-electric power stations on the Gaspereau-Black river system. Head of water created by upstream dam and canal. A large fish-ladder allows Gaspereaux (Alewives) to move upriver during spring spawning run.

Gaspereau Valley. A beautiful vale between the South Mountain and the Wolfville Ridge. Of interest are settlements of Acadian origin (Gaspereau and Melanson), weir fishing for Gaspereau, lateral dykes, and the Sterling farmstead (large apple farm).

Trip B9:
Armdale Yacht Club

Leader:
Sylvia McBurney

OVERVIEW
The Armdale Yacht Club is located in the Northwest Arm and is leased from the Department of National Defense. It is located on Melville Island and is connected to the mainland by a man-made causeway. The island once served as a prison for the French soldiers detained by the British during the Napoleonic era. The old jail still stands and today is used for equipment storage.

The visit to the Club is intended as a social event and includes a lobster or steak dinner. Participants will be picked up at the Sheraton and transported by boat to the club.

Guest memberships to the club are available for conference participants. Membership offer certain privileges and opportunities to crew.

Trip B10:
Halterm Container Port

Leader:
Murray Metherall

OVERVIEW
The trip provides participants an opportunity to understand one of the two container terminals in Halifax. Halterm is the original container terminal and is located near the mouth of the harbour adjacent to Point Pleasant Park. Participants will be able to board a vessel in the process of loading or unloading.

Trip C1:
The Cabot Trail and Cape B.eton Island

Leader:
Wally Ellison

OVERVIEW
This trip will focus on both the physical and human geography of Cape Breton Island

ITINERARY
The trip will explore the man-made causeway and "superport" development located at Port Hawkesbury which was designed to provide an ice-free tanker port. The following day, the trip will move up the west coast of the island through areas of strong Scottish heritage and also areas noted for their Acadian heritage. This leg of the trip will traverse the famous Cabot Trail, a route of dramatic coastal scenery, much of it located within the Cape Breton Highlands National Park. The trip will overnight at Baddeck, location of the summer home of Alexander Graham Bell and site of many of his experiments having to do with hydrofoils and air flight. The Bell Museum offers a excellent interpretative display. The final day will feature a visit to Fortress Louisbourg. This is a reconstruction of the French fortress of the 1740s and offers costumed animators and opportunities to sample the cuisine representative of the period.

Trip Proposal:
Marine Mining in Nova Scotia

Leader:
Terence Day

OVERVIEW
Although common in many other developed parts of the world, marine mining is not practiced in Nova Scotia or any other part of Canada at the present time. This is unfortunate because there are many environmental problems associated with the development of land based mines and quarries in Nova Scotia. Moreover, difficulties with the East coast fishery may mean that marine mining could provide an opportunity for economic diversification in coastal communities, without their having to turn their backs to the sea. However, there is a need to address potential environmental problems associated with marine mining.

This trip examines two areas which have seen some exploration activity in recent years, and looks at the environmental constraints upon development.

ITINERARY

1. **Scots Bay** — In the Bay of Fundy, Scots Bay is a potential source of sand for granular construction aggregate. Investigated by the Geological Survey of Canada in 1989 using high resolution seismic reflection systems and a sidescan sonar, it was possible to construct a series of profiles through the deposit and the surrounding seafloor. It was concluded that the deposit was approximately 7 square kilometres in area and averaged about 5 metres deep, which results in an approximate volume of 35 million cubic metres. This would supply all of Nova Scotia for about 10 years at current rates of granular aggregate production.

   The surveys revealed a large number of trawl marks on the seafloor to the east of the sand area, indicative of extensive fishing activity in the area. However, no such marks were seen in the sand field itself. Local fishers state that there is no fishing in the sand wave field, but that there is fishing around it. There are no proposals to mine this deposit at the present time, but an informal survey of the community suggests that local opinion is divided about the desirability of any proposed project. Some fishermen believe that the project is a potential source of revenue for them, and will assist in a time of declining fish stocks. Others believe it would have a detrimental effect on the fishery and should be opposed. Other concerns are the impact on the tourist industry, in particular the proximity to Cape Split, a well known hiking trail. The community as a whole is concerned about the potential economic benefits, but also about the social effects on the community.
2. **The Ovens** — Gold was first discovered on the beach at the Ovens, Lunenburg Co. in 1857. From June to December 1861 there was a gold rush in the area, involving some 800 men working placer deposits at Cunards Cove. It was claimed that some $120,000 of gold was removed, (i.e. 6000 ounces at $20 per ounce). In the century that followed, there was little interest in placer gold in the area, until 1968 when Canadian Matachewan Gold Limited completed 123 nautical miles of seismic sub-bottom profiling in Lunenburg Bay and Rose Bay, and took 120 samples with a jet lift system. Mapping and sampling by divers outlined six million cubic yards of auriferous gravel with variable gold content.

   Gold is still panned on the beach as a recreational activity. Visitors are urged not to break up the bedrock.